MAY 17, 1954

The Passenger Car Shortage . . . p. 122

RAILWAY AGE

PASSENGER TRAFFIC ISSUE

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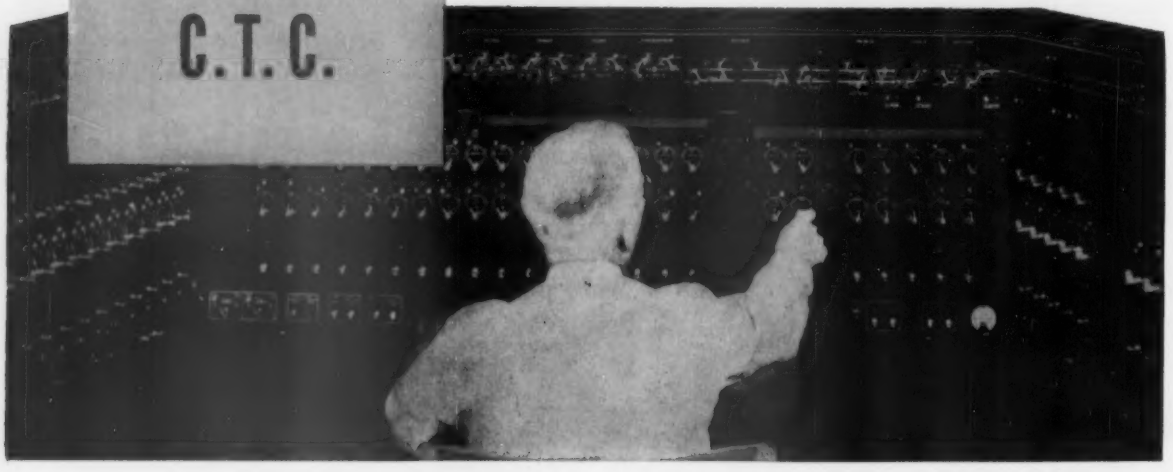

RAILWAY AGE

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May 17, 1954 Vol. 136, No. 20

Week at a Glance

Passenger traffic — with emphasis on what railroads are doing and can do to hold and regain such traffic—is the theme of this issue. All the articles listed below relate to that central question:

BRIEFS

The time-lag bill, which was designed to insure prompt increases in carrier rates as their costs rose, got a major setback on May 13, when the Senate sent it back to its Committee on Interstate and Foreign Commerce. The recommittal, by a vote of 39 to 37, came on the third day of the Senate's consideration of the measure.

More trailers-on-flats service in the East is a certainty. Plans of the Pennsylvania, Erie and New York Central have been announced. Watch for filing of tariffs by the Lackawanna-Nickel Plate and B&O.

Labor notes. — Arbitration board hearing on demands for a 174-hour work month for Pullman conductors will probably wind up in Chicago about May 19 . . . .

Current Statistics

Operating revenues, three months	
1954	$ 2,274,693,935
1953	2,595,625,218
Operating expenses, three months	
1954	$ 1,843,732,954
1953	1,979,735,431
Taxes, three months	
1954	$ 223,909,035
1953	310,785,212
Net railway operating income, three months	
1954	$ 146,620,417
1953	251,444,128
Net income, estimated, three months	
1954	$ 88,000,000
1953	185,000,000
Average price railroad stocks	
May 11, 1954	64.76
May 12, 1953	64.38
Carloadings, revenue freight	
Eighteen weeks, 1954	10,933,983
Eighteen weeks, 1953	12,621,374
Average daily freight car surplus	
Week ended May 8, 1954	133,622
Week ended May 9, 1953	40,521
Average daily freight car shortages	
Week ended May 8, 1954	402
Week ended May 9, 1953	2,003
Freight cars delivered	
April 1954	4,038
April 1953	6,839
Freight cars on order	
May 1, 1954	17,817
May 1, 1953	62,637

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Departments

Week at a Glance CONTINUED

The Order of Railway Conductors has changed its name to Order of Railway Conductors and Brakemen. . . . The Brotherhood of Maintenance of Way Employees will step up its program for job stabilization on a regional, rather than national, basis.

To "squeeze-test" passenger cars, a million-pound machine formerly owned and used by the Pennsylvania at its Altoona Test Plant has been acquired by the Association of American Railroads. It will be installed shortly at the AAR Research Center, Chicago.

Is the Frisco still interested in acquisition of the Central of Georgia? "When time and price are right, we may be," President Clark Hungerford stated in answer to a stockholder's inquiry. He added that, so far, the Frisco has not purchased any stock in the CofG.

Complete repeal of the federal excise tax on passenger travel is still an objective of many organizations. The recent reduction in the tax, from 15 per cent to 10 per cent, says the National Association of Travel Organizations, "has only mildly alleviated, rather than removed, a glaring inequity in the federal tax structure."

Competition for mail traffic gets sharper. At least one railroad has waived the recent 10 per cent rate increase authorized by the ICC. The move won back traffic that was going by truck. Another road stopped a threatened diversion by agreeing to take less than the 10 per cent on the competitive business.

An average load factor of 90 per cent for the five full years the "California Zephyr" has been operating, is reported—for his own company—by Harry F. Eno, passenger traffic manager of the D&RGW. Mr. Eno said 768,502 Rio Grande passengers had used the train—387,849 eastbound and 380,653 westbound, for an average per trip of 212 and 209, respectively. During this period, the consist of the streamliner has varied from 10 to 12 cars with an average total capacity of 235 passengers.

If Food and Beverage Service
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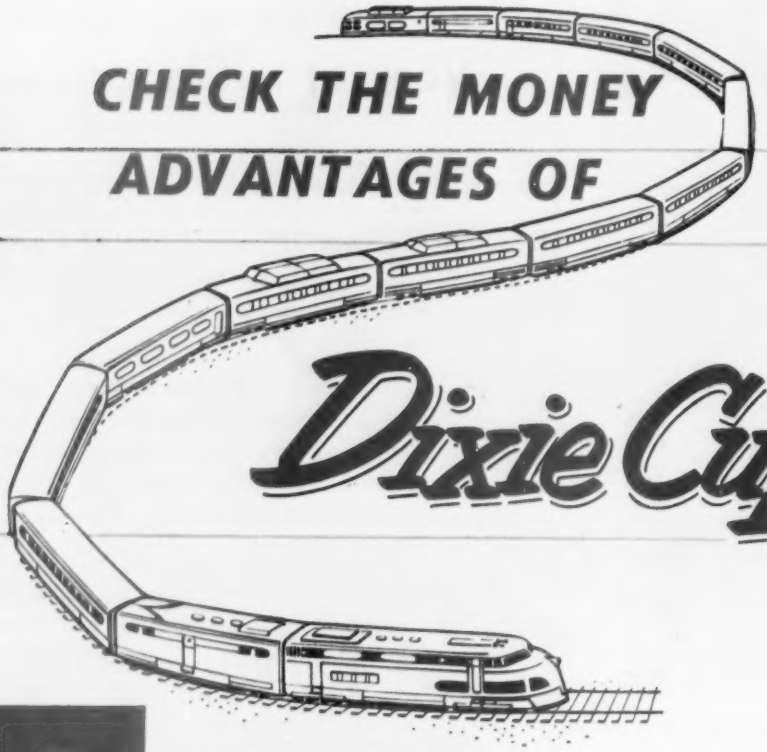

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PASSENGER TRAFFIC OFFICERS from 52 railroads gathered in Chicago May 3-4 to discuss current problems in the passenger field. The two-day forum covered a wide range of subjects—airline competition, fares, dining cars, mail traffic, Section 22 quotations and new equipment.

Fare Cuts May Get New Business

Passenger traffic officers hear favorable reports on family fare and incentive fare experiments

Several railroad passenger officers have indicated that cuts in coach and first-class fares, coupled with more vigorous promotion of railroad travel, may be a way to halt the downward trend in passenger business.

Their views were expressed at the interim meeting of the American Association of Passenger Traffic Officers, held May 3-4 at Chicago. Current experiments in family fares and incentive fares are producing results which range from "encouraging" to "very successful."

J. F. Whittington, general passenger traffic manager of the B&O, said incentive fare plans on his road have created new business and increased revenues, and he suggested the time has come to go after more first-class business, perhaps by using "more attractive" round-trip fares.

C. E. Williams, the New Haven's general passenger traffic manager, commented on his road's experience with a 10-ride, six-month bearer ticket in Massachusetts. This incentive fare plan has produced "more than a million passengers" since its introduction, and has "substantially increased" revenues, Mr. Williams reported.

The two-day forum on the state of passenger business brought together 185 representatives from 52 railroads. Their discussions centered around fares, dining car operations, development of new equipment, mail traffic, competition from non-scheduled airlines, public relations and Pullman Company operations.

Mail Traffic—Assistant Postmaster General John C. Allen, who spoke May 4, told the passenger officers that he "doubts" railroads, in many areas, can match truck prices. He said the Post Office Department pays an average of 29 cents "per actual mile" to motor carriers, compared with 53 cents to railroads for "comparable space."

This gap between 29 cents and 53 cents presents a "real problem," Mr. Allen declared. He said Post Office policy is "to obtain the most we can for our transportation dollar, consistent with sound business practice," and he added that he did not believe railroads would ever be able to recapture some of the business lost to trucks.

There are "areas" where "nobody can touch the railroads," but elsewhere other forms of transport have the advantage, Mr. Allen said.

Many difficulties which railroads face in handling mail can be traced directly to the department, Mr. Allen continued. He said he hoped the carriers would understand the department has its problems, too, and what sometimes appears to be indecision may be only a desire to make certain the right decisions are made.

Mr. Allen said revision is needed in the "horribly costly" system of calculating mail pay due the railroads, and he again asked that carriers reconsider the present system under which the Post Office must buy space 30 days in advance of need.

Section 22 Fares—Commenting on use of Section 22 spot quotations on military business, Chairman Earl B. Padrick of the Transcontinental and Western Passenger Associations reported that railroad movements are up again. Railroad share of total business ran 43% in March, after shrinking to as low as 35% last November.

Mr. Padrick estimated that about $2,621,000 in passenger revenue accrued to railroads from Section 22 spot quotations in the six months ending March 31.

A Selling Job—Underlying much of the discussion during the two-day session was the basic problem of "selling." R. T. Anderson, general passenger traffic manager of the Santa Fe, said railroads generally are not doing the sales job they once did, and he cited the need to "show the people what we have" in new and modern equipment.

Mr. Anderson went on to suggest

LOWER ROUNDTRIP FARES INCREASE PRR BUSINESS

Reduced roundtrip coach fares inaugurated April 15 by the Pennsylvania (*Railway Age*, March 22, page 15), have received favorable public response, according to Fred Carpi, vice-president—traffic. The new fares cut roundtrip ticket costs by about one-third and are good on all trains having coaches between Philadelphia and Pittsburgh and between Washington, Baltimore and Pittsburgh. They also apply on trips to and from most principal intermediate points.

"Sales of the new tickets are running at about 2,000 a week, a very good start," Mr. Carpi said. "While it is still too early fully to assess results of the experiment, we do know that more people are riding our trains between Pittsburgh and eastern points. It is evident that low cost, coupled with the frequency, convenience, comfort and safety of train service, is beginning to attract a response among travelers."

NH DROPS REQUEST FOR HIGHER COMMUTER FARES

The New Haven, in a letter to the Interstate Commerce Commission, has indicated its desire to withdraw the petition in which it sought authority to increase interstate commutation fares and intrastate commutation fares in New York State (*Railway Age*, January 11, page 212). The letter said the new management, which assumed office April 21, wishes to make comprehensive studies of the problems involved.

Patrick B. McGinnis, New Haven president, announcing the request to withdraw the petition, emphasized that the answer to the commuter problem "must be found in additional customers. It is not to be found in charging fewer and fewer commuters higher and higher rates. In spite of the high cost of operating trains today, I am confident that commutation can be placed on a paying basis if we can persuade enough commuters that it is as cheap and convenient to use our trains as to use buses and cars. We certainly are not going to convince them if we continue to raise fares."

that perhaps Eastern roads should put together a "demonstration train," one car from each road, and have it circulate in the West to publicize equipment. Meanwhile, Western roads could do the same, and run their train in the East.

Claude E. Peterson, vice-president, passenger traffic, of the Southern Pacific and president of the AAPTO, presided at the Chicago meeting. The group's regular annual meeting will be held October 10-13, at Pasadena, Cal.

New Family Fare Bargains Receive Favorable Comment

The new bargain fares for family travel, available now for either coach or first-class tickets (*Railway Age*, May 10, page 8), have received favorable nationwide comment in newspapers and magazines. Participating in the plan are 19 Western, 15 Eastern and two Canadian railroads.

In Western territory, the plan applies to both one-way and roundtrip tickets, and is applicable to and from eastern territory on the same basis. For a roundtrip, the head of a family pays the regular roundtrip fare, first class or coach, via the route used; the second parent and children between 12 and 21 years old pay only the one-way adult fare; and children between 5 and 11 pay only 50% of the adult one-way fare for the roundtrip. Children under 5 travel free.

One-way family fares are applicable only on participating western lines. The head of the family pays the regular one-way fare, first-class or coach. The second parent and children between 12 and 21 pay 50% of the regular adult fare; children 5 to 11, 25%; and children under 5 travel free. One-way and roundtrip family fare tickets are on sale for use from point of origin on Monday, Tuesday and Wednesday of each week, with return on any day and stopover privileges at any point en route.

Bargain fares announced by Eastern railroads are for roundtrips between stations more than 100 miles apart, and apply, for the first time, to travel to the southwest, west, Pacific coast and western Canada. The same general conditions applicable to sale of tickets in western territory apply to those purchased from Eastern railroads, except that tickets to destinations in the west will be sold, and can be used, only on Monday, Tuesday and Wednesday, whereas for trips within eastern territory tickets will be sold every day.

Eastern family plan tickets to western destinations carry the same routing privileges as regular six months' limit tickets. A vacationing family, for example, can go west through Chicago and return through St. Louis, visiting western parks in a circle. Stopovers are almost unlimited. Travelers beginning cross-country trips in the east may plan a stopover at Chicago and continue from there on any day of the week.

Operations

Plan Would Cut Passenger Losses

William White proposes to end parallel passenger service by competing railroads—PRR has indicated interest

William White, New York Central president, last week outlined what he described as a "radically new" passenger-service plan which would enable the NYC "to provide still finer service on its key routes" and save "millions of passenger train-miles a year" on the less favorable routes, with an overall "potential saving of many millions of dollars a year." The plan, he believes, will become "the passenger solution for Central and many other railroads."

"Instead of forcing railroads to provide wasteful, parallel passenger services between the same cities, each railroad would shoulder sole responsibility for carrying passengers between points where its facilities are the best available. . . Today dozens of cities throughout the northeast and midwest are linked by two or more railroads, and all the roads have to maintain passenger service. Naturally, they all try to time their trains for the hours when there is most travel. So, between cities A and B you're apt to find two or three trains leaving around 9 a.m. and two or three more around 5 p.m.—but no service for the rest of the day. Inevitably, there are far too few passengers to support these simultaneous trains. The result is the trains run partly empty, and heavily in the red.

"By contrast," Mr. White continued, "see what happens when our plan goes into effect. One railroad takes responsibility for providing passenger service between these two cities. Naturally, it is the road with the best route and the best available equipment in that area. At once, the picture changes. With all the available traffic to support its trains, this road can afford to provide the finest of coaches, parlor cars, Pullmans, diners, lounges. What's more, it can afford to run more frequent schedules. At the same time, the other roads save wasteful duplicating train mileage between cities A and B. Thus they are able to provide top quality passenger service at other points along their lines where they in turn will have the support of all available traffic."

Mr. White said that, as one example of the type of arrangement he had in mind, the NYC could give its New York-St. Louis passenger traffic to the Pennsylvania if the PRR would let Central carry all New York-Chicago travelers. It also would be more economical, he added, if one railroad operated all passenger service between Detroit and Washington and between St. Louis and Chicago. The PRR, Mr. White said, has indicated interest in the proposal, but, because of anti-trust laws that prevent collaboration on such matters, not much actual planning can be done. The NYC and other carriers soon may consult informally with the Interstate Commerce Commission to discuss what legislation might be necessary to permit a start on the program.

Piggyback Service—Turning to the Central's forthcoming piggyback service, Mr. White described it as "our biggest potential builder of new freight revenue." The service, he said, "will necessarily be handled in solid trains, moving at high speed, with a minimum of costly switching, and almost no waste from empty or idle cars. We estimate that earnings may be around

30 cents per dollar of revenue." In addition to the five previously announced terminals to be constructed to handle piggyback traffic (*Railway Age*, April 19, page 11), a terminal will be built at Buffalo, N.Y., Mr. White said. If piggyback service is successful, other terminals may be built at St. Louis, Indianapolis and Pittsburgh.

Great Northern Starts Piggyback on May 24

Truck-trailer-on-flat-car service will be inaugurated between the Twin Cities and Duluth and Superior by the Great Northern on May 24. In announcing the new service—the GN's first—the road termed it "experimental" and with "expedited door-to-door delivery of freight as the objective." Extension of the service elsewhere on the GN system was forecast "later."

The service will be for LCL merchandise on a through basis. The GN is leasing 24-ft trailers and equipping 52-ft flat cars to handle two trailers apiece. Movement of trailers over streets at origin and destination will be handled by tractor units of a contract trucker. Regularly scheduled fast freight trains will handle the service between terminal points located on GN property in St. Paul, Minneapolis and Superior.

C&NW Turns Down Suburban Terminal Idea

A proposal that the Chicago & North Western operate a secondary suburban terminal line on existing freight trackage on Chicago's near-north side (*Railway Age*, March 9, 1953, page 8), has been turned down by the railroad as too costly in relation to prospective new business.

For over a year, business interests north of the downtown "Loop" district have been urging the road to operate suburban trains over the street-level North Pier Terminal switching district line which traverses the near-north side business district to reach warehouses and industries in the Municipal Pier area. Proponents of the plan have suggested construction of suburban passenger stations at strategic points. They have been somewhat less definite as to how such service would be coordinated with the road's existing service on its three separate suburban divisions.

In turning down the proposal, the C&NW told the city council's committee on railway terminals that, while the new service might attract from 6,000 to 10,000 riders, it would require capital expenditures exceeding $33 million for new cars, stations, and trackage revisions. Many longer distance commuters would merely be diverted from existing C&NW services and the bulk of new traffic would be diverted from city transit services and would be largely short haul, the road's report indicated. It was pointed out that the road's present suburban service is operated at an annual loss of about $2 million and that the cost of providing the second terminal route would virtually double that figure, while hampering freight service in the area.

"No business, private or public utility, can survive," the report stated, "if it must continue to operate in the face of such losses, and especially when these losses are sustained in a situation where hundreds of millions of dollars of public tax funds are being expended upon enormous highway and related projects directly competitive with private enterprise."

Wabash "Cannon Ball" On Faster Schedules

The Wabash has placed its Detroit-St. Louis daylight "Cannon Ball" trains on faster schedules, with a reduction in running time for the 488-mile run of 20 minutes eastbound and 55 minutes westbound. Departure times are unchanged.

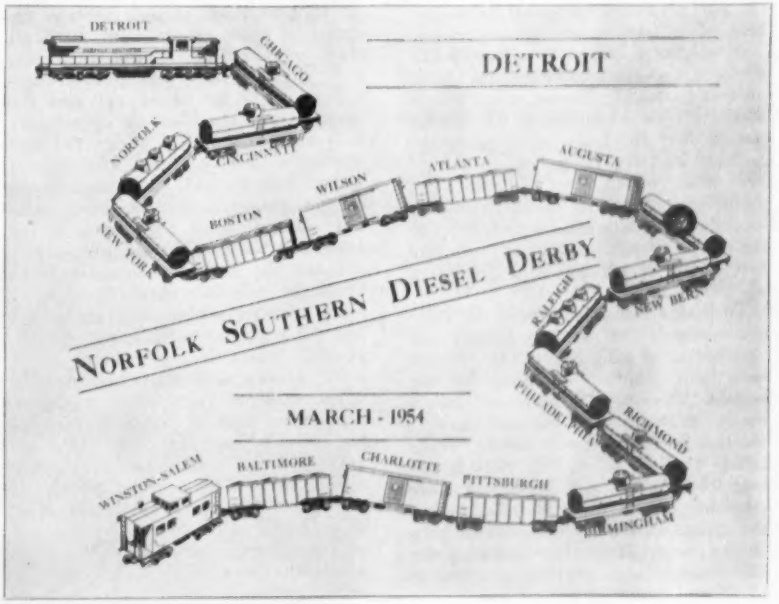
By using the Delmar Boulevard station in St. Louis as a point of direct connection, the new westbound schedule makes it possible for "Cannon Ball" passengers to make connection with the road's streamlined "City of St. Louis" for service to Kansas City, Los Angeles, Portland, Ore., and San Francisco. Arrival at St. Louis Union Station permits transfer to principal trains to the Southwest.

Union Pacific Extending Its Piggyback Services

The Union Pacific has obtained permission from the Interstate Commerce Commission to depart from certain tariff publishing rules in connection with a proposed extension of the road's truck-trailer-on-flat-car service. According to the road, the tariff is to apply between Utah and points in southern Idaho, Nevada, eastern Oregon and western Wyoming, and will be effective June 1.

"While not covered by the same permission authority," the road has stated, "an extension of this service is also being inaugurated between Los Angeles and points in southern Idaho, eastern Oregon and western Wyoming on the same date.

Systemwide? — "Actually, the planned extension of this service is only one more step in the program inaugurated in August 1953 between Los Angeles and Las Vegas, Nev.," the statement continued. "This was an experimental operation to give the railroad some actual experience. On November 30, 1953, the service was ex-



THIS MONTHLY "DIESELOMETER" is used by the Norfolk Southern to dramatize performance of its traffic sales offices. Each office is assigned a monthly quota of business to be secured. The agency achieving the highest percentage of its quota is assigned the place of honor on the diesel locomotive at the head of the train; the agency with the second highest percentage gets the first car behind the diesel, and so on, down to the caboose, which goes to the agency with the lowest percentage of its quota for the month. The "eight-ball car" is set into the train at 90% of quota.

Quarterly and annual incentive awards are provided for the best cumulative monthly sales records.

tended between Los Angeles and Salt Lake City. Further extension of the service between southern California, Utah and southern Idaho is a third step in this program. This will be followed by inauguration of a similar service between Portland, Ore., and southern Idaho and Utah sometime in the future.

"It is planned that eventually this service will be in operation on the entire railroad, joint operation with other railroads following."

The statement termed the present service "pioneering" and declined to estimate when the service would be system-wide. "We are definitely going to be competitive with motor truck carriers by providing faster service not only on LCL traffic, but on carload traffic as well," the statement said. "We likewise intend to provide service under this program which will be competitive with truck lines serving off-track locations." The operation has been "well received," it concluded.

Law & Regulation

Shippers Boards "Necessary Evils"

Warren Brown says they would be undesirable if railroad industry were operating as a free enterprise

Shippers advisory boards are a "necessary evil," Warren W. Brown, president of the Chicago, Indianapolis & Louisville, said in an address before the May 7 meeting of the Atlantic States Shippers Advisory Board in Atlantic City, N.J. "If we look at the railroad industry with the rightful expectation that it should be under the free enterprise system, shippers advisory boards are undesirable," Mr. Brown continued. They are necessary, however, he added, because railroads are not permitted to operate as members of a free enterprise system.

If relations between railroads and advisory boards continue on their present basis, Mr. Brown said, "I fear there will be a maximum of concentration upon the factor of bringing the railway industry to greater peaks of perfection within the framework of the present regulatory system, with only secondary consideration being given to the matter of equipping it to move into new fields of service in a free area of competition."

To bridge the gap between the present necessity for shippers boards and elimination of such boards, Mr. Brown said, will require the help of the boards. "We have progressive trends in the railroads that indicate changes for the future," he concluded. "Those trends will be spurred if you change with them and place more and more emphasis upon leading questions to the railroad industry designed to keep in the forefront of their thinking the difference between correcting a present plant and building a new one."

A Plan for Deregulation — Mr. Brown, in an earlier address before the Transportation Club of Seattle, said: "To completely convince each person that the railroad industry wants free enterprise and is anxious to be free from the multitude of sins that it covers with the word 'regulation,' perhaps we should all band together as a united railroad industry and put ourselves and our public interest corrections over in one great flow of mental output."

That talk was devoted to answering a "very pointed" question recently asked of him, namely, "Is the railroad industry afraid of free enterprise?"

"Unfortunately," he continued, "the railroad industry today is far away from agreement within itself as to what we have to do to achieve a healthy competitive status. One group advocates elimination of only certain restrictions while others want them all taken away. I belong to the latter category. I think all of the archaic legislation should be wiped out and the railroad industry given an opportunity to operate completely under the free enterprise system. There are dangers in both courses and, unfortunately, the greater danger happens to lie in ruthless elimination of regulation. If the subject is not thought out properly in advance, the public can become panicky if the railroads should commit an early blunder under free enterprise, and the regulation will be reinstated—possibly worse than ever before."

Mr. Brown said the public must be apprised of the benefits it would receive from such a program. Lowered tax bills, he said, have been held out as inducement should the public conclude that truckers and air lines should pay a greater share of their cost of doing business. "But we have not concentrated very much on being specific about the manner in which railroad service will improve and directly benefit them. It has been generalized, but there have been no clear-cut statements about service improvements or tax gain per citizen, per community or per state."

Toward this end Mr. Brown suggests:

- That a "handful of good research men put on this job of pin-pointing public subsidy can come up with all the ammunition the railroad industry needs to state its case for elimination of public subsidy";
- That the industry must develop a factual account of what it will do for the public; and
- That it must then develop "public relations standards adequate to make a fair, honest and convincing presentation to the public."

"No one is going to correct our troubles but the taxpayer. . . . Our contentions cannot continue to be explained to him in nebulous terms. Our facts must be hardened to the point that each man recognizes that everything we wish to do is in the public interest first, and only in the railroads' interest because public interest demands healthy rail carriers.

"The public's conception of public interest should include an understanding of the difference between control combined with subsidy, subsidy alone, or control alone. The public must also understand the effect of unequal application of these items. . . . And the railway industry must decide whether the public interest is best served by (1) equal control alone for all transportation elements, (2) equal subsidy alone for all, or (3) a combination of equal control and subsidy for all. The industry understands the workings and effects of each. Now it must choose.

"I have found that in some shipping circles, the lectures of railroad men on competitive discrimination are being termed the railroad industry's 'crying towel.' Notwithstanding this description, you can't say we're afraid of free enterprise when we do so much talking about it. . . . If, however, we continue to speak out about handicaps and do not present a master plan for their solution, you will have a right to wonder."

More Time to Advise ICC About Contract Truckers

Interested parties now have until June 15 to advise the Interstate Commerce Commission as to whether it should recommend to Congress changes in those provisions of the Interstate Commerce Act which relate to contract trucking.

The commission is seeking such advice in the recently instituted inquiry docketed as Ex Parte No. MC-46. (*Railway Age*, March 22, page 9.)

ICC Suspends Valuation Reporting for Small Roads

The Interstate Commerce Commission has suspended until further notice its requirement for annual valuation reporting by Class II and III railroads, including Class II and III switching and terminal companies.

The suspension applies to approximately 300 roads. It does not apply

to Class II and III companies affiliated with Class I roads.

The commission, its announcement said, felt justified in its action because of the large amount of valuation work accumulated in connection with Class I roads, and its limited personnel for handling these activities. "This action is also in line with its efforts to effect all possible savings in time and expense to railroads," the announcement added.

Each Service Should Make Profit

ICC's Clarke says time has passed when losses on some traffic could be offset by big gains on other business

Interstate Commerce Commissioner Owen Clarke thinks carrier rates should be designed to return a profit on each service offered—but not a profit so large that is drives customers away.

The commissioner expressed this view in a May 8 address at Cincinnati, before the sixth annual convention of National Tank Truck Carriers, Inc. He warned that carriers must meet present conditions just like today's merchants, who are no longer in the position of the country storekeeper.

Pricing—"The old-time storekeeper—with no competition except the mail order house which was at least a week away—did not have to watch individual items closely," Mr. Clarke said. "What he lost on one, he could make up for by a double profit on something else. To stay in business today, the storekeeper has to try to make a profit on every item he handles; and not too large a profit on any one, lest he drive the customers away. And that also is what has happened in transportation."

Mr. Clarke also outlined principles which he thinks should be kept in mind when carrier rates are being made. "The rate maker," he said, "should not allow rates to drop to the direct cost line because each commodity should make some contribution to the overhead burden. . . . Likewise, he must decide whether the commodity has the ability to provide more than, or less than, an average contribution to the burden when considered on a unit basis. At the same time he should also strive to combine that unit contribution with the greatest volume of traffic that may be induced to move."

Advice to carriers making rate proposals to the commission was also embodied in Mr. Clarke's address. It is "essential," he said, that such rate proposals be supported with "adequate" cost data.

"We find," he added, "an unfortunate lack of fact-facing by carriers who approve the use of cost data when it appears to support the position they have taken with respect to proposed rate changes, and deny the validity of cost determination when it does not support the position they wish to take. . . . The controlling objective in the conduct of commission hearings is to ascertain all pertinent facts, including, of course, those relating to costs. You might say that facts are the bread of life in our household, and blessed is the man who has at his command a full loaf—unbuttered."

TO POWER MOUNTAIN INCLINES on the Estrada de Ferro Santos-A Jundiai (Brazil), Railroad Supply & Equipment, Inc., Clark's Summit, Pa., has sold 15 300-hp, 150-lb Amesteam boilers—the first three of which, crated for shipment, are shown here, with accumulator and condensate tank on the fourth flat car. The boilers, operation of which will be almost entirely automatic, will replace older boilers to provide power for inclines which rise from 200 ft to 2,400 ft above sea level, on a grade of 8%.

AIR TRAVEL HAZARD NEARLY 4 TIMES RAIL

Travel last year by regularly scheduled domestic air lines was nearly four times more hazardous than travel by rail.

The comparative figures were published by the Bureau of Transport Economics and Statistics of the ICC in its "Monthly Comment."

They showed that the air lines' 1953 fatality rate per billion passenger-miles was 5.6, compared with the railroads' rate of 1.48.

Both figures were somewhat higher than the comparable 1952 rates of 3.6 and 0.56, respectively. In that year, travel by air was 6½ times more hazardous than travel by rail.

The figures also showed that 47 passengers were killed on railroads in 1953, while passenger fatalities on air lines totaled 86. Fatalities in 1952 were 19 and 46, respectively.

New Facilities

CNR Plans Two New Lines, to Cost $38 Million

More branch lines to tap mining areas in northern Ontario and northern Quebec are planned by the Canadian National.

Notice has been given in the House of Commons at Ottawa by Transport Minister Lionel Chevrier of bills to authorize construction of two lines—one from St. Felicien, Que., to Chibougamau and from the latter point to Beattyville, about 281 miles; and another from Hillsport, Ont., to Manitouwadge Lake, about 25 miles.

Total cost of these new branches is estimated at $38,750,000. Under bills to be presented to Parliament, temporary loans may be made to the railway from the federal treasury to permit making an immediate start on construction.

New Orleans Belt Starts New Development Project

A 52-acre tract of land near the east bank approach of the Mississippi River bridge will be developed for industrial use by the New Orleans Public Belt. The road will spend some $185,000 for

NEW $50-MILLION PLANT NEEDS LOTS OF RAILROAD

NEW FORD assembly plant at Mahwah, N. J., on the Erie main line, is expected to produce approximately $9 million worth of freight traffic a year for the road. The Erie will provide expedited service for parts from prime producing points. Scope of new rail facilities necessary to serve this new giant of industry is illustrated by northerly access track, three-quarters of a mile long, from the main line to the plant.

utilities, sewerage, water lines, roadways and new trackage, which, when completed, will afford approximately 39 acres of developed land for accommodation of industrial plants.

Private contractors will perform all necessary work except for the laying of tracks, which will be done by Belt employees. Plots of land will range in size from one to five acres and the exact subdivision of land will remain flexible, according to E. J. Garland, general manager of the road. Because of the tract's proximity to the Mississippi bridge, no industries manufacturing explosives or petroleum products with a low flash point will be permitted to locate there.

Detroit, Toledo & Ironton.—A 5-span creosoted pile trestle south of Malinta, Ohio, will be replaced by a new 6-span precast ballast deck superstructure supported on steel H-pile bents. Work on this new structure, which will cost an estimated $66,727, will begin in May.

Detroit & Toledo Shore Line.—A brick combination station and office building will be constructed at Trenton, Mich., by the Charlson Company at a cost of $76,500. The one-story 40 x 60-ft building is expected to be ready for occupancy by June.

Chicago & North Western.—The C&NW plans to convert the entire street-level floor of its Chicago passenger terminal into a modern shopping center. Area needed for such a center will be gained by consolidating all railroad passenger facilities in new and modern quarters on the second (train level) floor. The project is expected to result in (1) greater convenience for passengers, (2) more efficient physical arrangement of passenger service facilities, and (3) added terminal income from rental of more than 25,000 sq ft of shopping center space.

The C&NW has retained the real estate management firm of Farr, Chinnock & Sampson to handle leasing arrangements with interested business firms. It has been emphasized to *Railway Age* that the center is conceived as something quite different from mere space for station concessions of the usual type. It is expected that luxury goods, as well as staple merchandise, will be offered in specialty shops whose sales pattern will be adjusted to meet needs of business people working in the area, as well as those of commuters and long distance travelers.

Stage One—to begin this month—includes:

(1) Extension of second floor to add about 3,000 sq ft of area;

(2) Removal of ticket offices, from street level, and construction of modern ticket offices, reservation bureau, telephone information center and travel bureau as one physical unit along south end of main waiting room;

(3) Relocation of baggage checking office from street level to second floor;

(4) Elimination of the Canal Street stairway and replacement with escalators;

(5) Remodeling northeast end of main waiting room to provide open access to elevators and new baggage checking office; and

(6) Removal of passenger service facilities from street floor.

Stage Two—to take place next year—will include:

(1) Replacement of staircase connecting first two floors with two escalators and stairs;

(2) Installation of electric-eye devices for automatic door operation;

(3) Installation of a new double-faced trainboard; and

(4) Remodeling of men's and women's rest rooms and modernization of facilities.

Galveston Wharves.—Reconstruction of Piers 39 and 40, a $1,200,000 project to be completed in April 1955, involves rebuilding the T-head of those piers, all the slip side of Pier 39, and part of the slip side of Pier 40—about 2,200 lineal feet of steel bulkhead, concrete cap, concrete apron, and related items. The Pier 39 apron will have a marginal track. In addition, a large portion of the sheds on the east side of Pier 14 will be renovated. A gantry crane is being erected, with steel H piling for the foundation. The crane, with 95-ft boom and 35-ton lifting capacity, will operate on a 450-ft track. The crane project, costing approximately $165,000 and scheduled for completion about June 1, is being undertaken by the Texas Gulf Construction Company.

New York Central.—Construction of a new station and other improvements to provide better facilities for passengers at Harmon, N.Y., has been authorized. Improvements, in addition

Briefly . . .

. . . **Exact, full-color replicas** of official emblems of 28 major railroads will serve, beginning in July, as a new "packed-in" premium for the Post cereal, Sugar Crisp. Stamped and printed on metal, the 3-in. emblems are said to be suitable for decorative use in clubrooms, dens or playrooms, on bicycles, etc. As an additional premium, three booklets featuring railroad quizzes, games, pictures and stories will be made available.

to a new and larger station, include new elevators on eastbound and westbound platforms, and a ramp to replace the lower third of the present stairway on the westbound platform. A 579-ft extension of the canopy at the north end of the eastbound platform also will be built.

Santa Fe.—Electrical work in connection with air conditioning of the general office building at Topeka, Kan., has been covered by a contract to Super Electric Construction Company, Chicago.

Spartanburg Terminal. — This road has applied to the ICC for authority to construct a 4,166-ft track in Spartanburg, S.C. The track would provide a connection between the Clinchfield and the Charleston & Western Carolina.

Texas & Pacific.—A new pool car dock to be constructed at Gaston Avenue spur, East Dallas, Tex., will offer 18,000 sq ft of warehouse space and 1,500 sq ft of office space. A new frame station, 24 x 32 ft, is being constructed at Greggton. Two yard tracks at Mineola are being lengthened 1,650 ft each.

Tentative plans for 1955 call for relaying 55 miles of heavier rail on the Western division; half of this will be between Wickett, Tex., and Barstow.

TO DRAMATIZE the fact that "American industry is owned by the American public—not by a paternalistic or dictatorial government," 12 major industrial concerns are having specially designed, animated, illuminated exhibits placed in ground-floor display windows of brokerage firms in northeastern cities. Among the participating companies, whose exhibits will be displayed on a monthly rotating basis, are Allied Chemical & Dye Corp.; Carrier Corporation; Chrysler Corporation; General Electric Company; Sinclair Oil Corporation; Socony-Vacuum Oil Company; Westinghouse Air Brake Company; and Yale & Towne Manufacturing Co.

Financial

Heineman Group Wins M&StL Control

Proxy contest gives it 7 of 11 directors, by 3-to-2 margin—Devins to continue as president

By electing 7 of the road's 11 directors, by an approximate 3-to-2 majority, a group of Minneapolis & St. Louis stockholders headed by Ben W. Heineman, Chicago attorney, has taken over control of that company from the former management forces headed by Lucian C. Sprague, chairman of the old board. The Heineman group's victory, achieved at the road's annual meeting in New York May 11-12, climaxed a long, and at times acrimonious, contest, which began last year, for proxy support from the road's 2,200-odd stockholders.

John W. Devins, who succeeded Mr. Sprague as president of the M&StL just a few months ago, is expected to continue in that position, with chief executive responsibility for the company's operations. The position of board chairman, according to Mr. Heineman, will be abolished; but he and his supporters have indicated their belief that an executive committee should be established within the board, to govern overall policies, particularly on financial matters.

Future Plans—Mr. Heineman told reporters the new board has no definite immediate plans for the M&StL, except to effect all possible economies by "tightening up all along the line." His group, prior to the meeting, had charged the former management with "extravagance," particularly in its traffic solicitation policies; he indicated his group feels "the best way to get business is by attention to service and to problems of shippers." He stated, however, that no present traffic solicitation offices will be closed.

He added that his group hopes to have a "well known" Chicago rail analyst, whom he did not name, make a complete survey of the property "at an early date"; and that they expect to close the New York City corporate office, moving the company's secretarial functions to its operating headquarters in Minneapolis.

The possibility of a merger between the M&StL and one or more other unnamed railroads was mentioned frequently during the meeting, and one of the new directors indicated the new board might be receptive to some such proposal "in about a year."

New Directors—The new board of directors includes all seven nominees of the Heineman group, and four members of the former board, all 11 of whom had been nominated for re-election. The Heineman group, beside Mr. Heineman himself, includes Arthur S. Bowes, Chicago, former president, Bowes Industries, Inc., paper products manufacturers; Henry DeMeester, Ormond Beach, Fla., former president, Northwest Cities Gas Company; William E. Fay, Joliet, Ill., president, Champion Machinery Company and a former director of the Rock Island; Franklin Lyons, Chicago, member, executive committee, Four Wheel Drive Auto Company; Joseph S. Nye, New York, railroad security analyst; and Jouett Shouse, Washington, D.C., attorney.

Former directors reelected, were, beside Mr. Devins, L. A. Potter, Minneapolis, chairman, Forman-Ford Company, paint manufacturers; A. G. Bush, St. Paul, chairman, executive committee, Minnesota Mining & Manufacturing Co.; and H. P. E. Skoglund, president, North American Life & Casualty Co.

The new board will hold its first meeting in Chicago May 26, and may later consider addition of four new members, subject to stockholder approval.

Proxies held by the Heineman group represented 307,859 shares, against 219,373 for the former management group. About 96% of the company's voting stock was represented by proxy or in person at the meeting.

Stock Dividend Approved — Stockholders approved, almost unanimously, a proposal to issue up to 200,000 additional shares of common stock for distribution to present holders as a stock dividend, on the basis of one-third new share for each share previously held.

In closing the meeting, Mr. Sprague, the retiring chairman, thanked "those in the organization who have helped build the fine railroad which the new directors are taking over."

NYC Would Delay Meeting For Decision on Proxy

Court trial of the issues between Robert R. Young and his associates, on one hand, and the New York Central on the other, before the NYC's annual meeting, presently scheduled for May 26, was sought in a brief filed by the railroad last week in the New York County Supreme Court.

Stockholders "are entitled to know where the truth lies" before they vote at the meeting, according to the brief, which supports the request of the NYC and Harold S. Vanderbilt, NYC director, for an injunction to restrain the Chase National Bank from granting a

proxy for the 800,000 NYC common shares purchased from the Chesapeake & Ohio by Clint W. Murchison and Sid W. Richardson, associates of Mr. Young.

"We do not want to delay unduly the annual meeting," the brief said. "On the other hand, it is important to all the stockholders and to Central that defendants' rights to vote the 800,000 shares be ascertained under oath and cross-examination before damage is done—not after." The NYC will be "irreparably damaged" if Mr. Young and his associates gain control, the brief said. "It is no answer to say that defendants can be unseated after the election. Only confusion and chaos will result from delay." It was suggested that the stockholders' meeting be adjourned, to a date fixed by the court, to permit trial of the action and entry of judgment. The brief said adjournment of one month and perhaps less would be sufficient to permit the case to be tried.

Beech Mountain.—*Acquisition.*—Division 4 of the ICC has authorized this new company to acquire and operate a 10-mile segment of rail line extending from Alexander, W.Va., to Beech Run Junction. The line, which connects with the Baltimore & Ohio, will serve an area underlaid with an estimated 100,000,000 tons of recoverable coal. The new company estimates it will originate 250,000 tons of coal the first year. No capital stock has been authorized as yet, but if and when issued it will be acquired by Peerless Coal, developer of the new field.

Chesapeake & Ohio.—*Trackage Rights.*—Division 4 of the ICC has approved this road's plan for establishing an additional route across the Niagara river at Buffalo, N.Y. The plan includes trackage rights over a 9.7-mile segment of the Lackawanna and use of International Bridge. It will save the C&O an estimated $100,000 annually and will speed interchange arrangements with the Lackawanna. The C&O's present route between Buffalo and Canadian points is via Suspension Bridge, at Niagara Falls, and the new arrangement will be about 10 miles shorter (*Railway Age*, February 22, page 75).

Missouri Pacific.—*Reorganization.*—This road's trustee, Guy A. Thompreson, has filed with the ICC a proposed "agreed plan" of reorganization of that road. Agreement on the plan was reached among several parties to the reorganization proceeding; and the commission accepted it "solely as a statement of the position" of the parties subscribing to it. The plan is based on that recommended in the proposed report (now pending before the commission) made last February by Roger T. Boyden, assistant director of the commission's Bureau of Finance and Examiner Homer H. Kirby (*Railway Age*, February 22, page 54). However, substantial modifications of the Boyden-Kirby plan are proposed.

Among them would be the issuance of new Class B common stock on a 1-for-20 basis to holders of the old common. Under the Boyden-Kirby plan, participation of holders of the old common would depend upon future earnings. Also, the "agreed plan" would eliminate preferred stock from the reorganized company's capital structure. Instead, there would be an issue of income debentures.

Like the Boyden-Kirby plan, the "agreed plan" provides for exchange of the old preferred for new Class A common, with control of the new company thus going to holders of the old preferred. The "agreed plan" provides for total capitalization of $812,762,979, compared with $809,764,722 proposed in the Boyden-Kirby plan.

Pennsylvania.—*Modifies Leases.*—This road has asked the ICC to authorize modification of lease agreements with 17 affiliated companies in a move to save about $1,900,000 annually in federal income taxes. The PRR proposes to eliminate the portion of rental payments it gets back in dividends, thus removing some "double taxation."

Competitive Transport

President Signs Seaway Bill

Approves legislation which provides U. S. participation with Canada in construction of St. Lawrence project

President Eisenhower on May 13 signed the recently-enacted legislation which provides for United States participation with Canada in construction of the proposed St. Lawrence Seaway.

The legislation was embodied in S. 2150 on which Congressional action was completed May 7, when the Senate concurred in minor House amendments to the measure. The Senate's favorable action on the whole bill was taken last January by a vote of 51 to 33. As reported in *Railway Age* of May 10, page 4, the House passed the bill by a vote of 241 to 158 on May 6.

Victory for the Seaway's proponents thus came after years of efforts to have the federal government embark on the project. It has been supported by all recent Presidents, including Democrats Roosevelt and Truman and Republicans Hoover and Eisenhower.

Favorable developments for the proponents came recently in the decision of Canada to go ahead alone, and in the support of those steel manufacturers who are interested in an improved water route for the transportation of Labrador ore to the Great Lakes area.

In the former connection, it was argued that the United States should be in on any such development along the international boundary. Also, the "national defense" argument was very much to the fore.

The Plan—The legislation provides for the creation of the St. Lawrence Seaway Development Corporation with authority to construct, operate and maintain the proposed waterway in cooperation with Canada. The authorized work would be confined to the International Rapids and Thousand Islands sections of the St. Lawrence. They would include a 27-ft channel in the

"CINERAMA" RIDES IN A DOME aboard the "California Zephyr," to reproduce for moviegoers the experience of traveling through spectacular western scenery in the comfort of a modern streamliner. Here Harry Squires, chief cameraman for "Cinerama Holiday," stands by with the special three-film camera, preparatory to photographing the view from the front dome car of the train.

International Rapids section "together with necessary dredging in the Thousand Islands section."

Estimated cost of the work is $105 million, and the Corporation is authorized to sell that amount of bonds to the Secretary of the Treasury. A proposal to provide for sale of the bonds to the public without government guaranty was rejected by the House. It was embodied in a proposed amendment offered by Representative Brownson, Republican of Indiana.

Tolls—As to tolls, the Corporation is directed to establish such charges in cooperation with Canada. There are also provisions for establishment of tolls on works under the Corporation's administration if no agreement with Canada can be reached.

Management of the Corporation is to be vested in an administrator. There will also be a deputy administrator and an advisory board of five members. All of these will be appointed by the President with Senate confirmation.

Provinces to Retain Control Of Canadian Trucking

Agreement was reached in Ottawa at a recent two-day conference between the Canadian federal government and nine provincial governments (all except Newfoundland) on plans to leave to provinces control over interprovincial and international highway truck operation.

Even though the British Privy Council in London recently ruled that the federal government had exclusive jurisdiction over interprovincial and international truck business, the Ottawa government was reluctant to enter the field, and suggested to the provinces that they regulate interprovincial op-

Briefly . . .

. . . **The Pennsylvania has sold** its property between 18th and 19th streets on the south side of the new Pennsylvania boulevard in Philadelphia. A 20-story apartment house, part of the Penn Center Development announced shortly after the PRR demolished its old Broad Street Station (*Railway Age*, February 9, 1953, page 8, and May 25, 1953, page 22), will be built on the approximately 28,500-sq ft plot. The apartment is expected to be ready for occupancy in the spring of 1955.

About the St. Lawrence Seaway

AN AFTER-THE-BATTLE EDITORIAL PREDICTION

Last week the railroads lost the last skirmish of one of the biggest battles of their history—that against the St. Lawrence Seaway project. Passage of the bill on May 6 definitely commits this country to the enterprise. Certain provisions of user-payment, the Administration erected the Canada, but building of the Seaway is a certainty.

Giving lip-service to the enterprise principle of user-payment, the Administration erected the facade of a government "development corporation" to build and maintain the U.S. share of the project from prospective toll revenues. Nevertheless, when confronted with the Brownson amendment, which would have resulted in public sale of the bonds—like any corporation—the proponents shouted it down, on the ground that the provision would "kill" U.S. participation because bonds unbacked by the taxpayers could not be sold. Thus, the proponents tacitly admit that those who want the Seaway are not sufficiently good risks, as prospective paying customers, to attract private capital into the enterprise.

It is clear that the idea of full toll support for the Seaway was merely a sales "gimmick"—which may conveniently be laid aside, now that the public has signed up.

Here are a few safe predictions about the Seaway:

(1) Its construction will cost a great deal more than the $200 million estimated for Canada and the $105 million for the U.S. No publicly supported waterway venture in history has ever come within "shouting distance" of the estimated cost, even in times of declining price levels.

(2) The canalization project will not be self-supporting from tolls collected on shipping. When it appears that traffic will not be able to "bear" tolls sufficient to pay off first cost and maintenance, the facility will not be abandoned—as would a railroad. It will be kept going and the deficit will be made up from the public purse.

(3) Completion of the Seaway will set in motion a chain reaction for many more expensive, tax-supported projects for deepening and improving harbors around the Great Lakes and no attempt whatever will be made to recover these further expenditures from the waterway users. Ocean-going vessels able to use the 27-ft minimum channel provided in the latest plans for the Seaway could not, for the most part, use existing harbors west of Toledo. These harbor improvements will be made largely from federal funds, plus further money for terminals extracted by cities from local property taxpayers.

(4) The boon handed to shippers and receivers in regions helped by the Seaway will inspire demands from other regions for offsetting benefits—bigger and better harbors for coastal cities; the manufacture of more navigable rivers for the inlanders.

(5) The Seaway itself will never be deep enough. As with truckers on the highways, each increase in loading capacity provided at additional public expense will lead to dreams of even greater economies for the operators and to demands that even more capacity be provided. The Seaway will be deepened to greater and greater depth.

The effect of a completed Seaway project on individual railroads will vary widely, of course. Some roads will experience an increase of tonnage. But, for the industry as a whole, there will be an important loss of traffic and a still further set-back in the proportion of the nation's total traffic moved by rail. Railroads will be shorthauled; truck competition from water terminals will be intensified; railroad investments in existing privately-financed port facilities will be jeopardized. Yet, because the Seaway will be an "iceway" for four or five months a year, the railroads will not be able to abandon the facilities rendered profitless by the competition of the Seaway; they will have to keep them as a "standby facility."

The chief evil of the Seaway for the economy as a whole is that (1) it injects another large dose of pure socialism into transportation; and (2) it will encourage private carriage—including that of foreigners—to the detriment of responsible common carriers.

The railroads must speedily adjust their pricing structure to minimize their traffic losses; and to find some way of transferring the cost of "standby" facilities from dependable customers to those in whose behalf "standby" capacity is maintained.

erations in the same way they control truck operations within their own borders. The provinces assented to this.

A bill was drafted at the conference; a majority of the provinces indicated their approval of it; and all undertook to present it to their respective governments for early consideration.

LCL Service

How Bad Is Rail LCL?

"Not nearly so poor in quality as some would have you believe," says one shipper who finds "highway service leaves much to be desired in many respects"

"There seems to have become fixed in the minds of many the idea that less-carload rail service is not worthy of the name and should be avoided whenever possible. A direct counterpart of this fallacy is the feeling that highway transportation is perfect, and that every shipment of merchandise in less than a volume lot should move in that form of transportation. I am not one of those who feel that rail LCL service is nearly so poor in quality as some would have you believe. I can tell you from actual experience that highway service leaves much to be desired in many respects. With a reasonable and continuing improvement and expansion in rail LCL service, and a slight deterioration in highway service, the two would approach parity. This is, we feel, as it should be. The service should be fostered and maintained for the good of railroads, shippers and highway carriers, as well as the country as a whole."

The speaker was George O. Griffith, director of traffic, American Home Products Corporation. His audience was the National Small Shipments Traffic Conference, which met in Chicago April 29-30 with operating and traffic officers of some 35 major rail carriers to explore means of improving LCL merchandise service.

Fair Trial—"Officers of this conference," Mr. Griffith said, "would like to obtain from the carriers such assurance as will enable them to urge members of the conference . . . to give rail LCL service a fair trial; to make every effort to assist rail carriers in every reasonable way to maintain their present service, and to expand it as rapidly as conditions will permit—all to the end of reestablishing adequate and satisfactory LCL service on a nationwide basis."

The conference asked that railroads conduct a 90-day test, during which they would:

- Forward merchandise cars daily (unless otherwise published) irrespective of loaded weight;
- Work all forces necessary to keep cars on schedule and make prompt pick-up and delivery;
- Effect transfers within 24 hours;
- Solicit all LCL traffic actively; and
- Make available to shippers time performance records to show forwarding date, arrival date, unloading date, and percentage of on-time performance.

The conference also declared that merchandise cars handled for other agencies should not receive preferential service over users of direct LCL scheduled cars "who pay the highest rates."

Universal "Louisville" Plan? — A broad new program was hinted at, which suggested that one-third to one-half of all LCL car-days could be saved "through proper utilization of a limited number of carriers from respective points of origin." The new program apparently looks toward a nationwide plan for channelized routing of LCL traffic, patterned after the "Louisville Shippers Plan."

Mr. Griffith, chairman of the conference, said success of the Louisville Plan in distributing merchandise among carriers and in improving service, had led to discussions to consider whether a similar plan could be worked out across the country through sectional organization.

"Objective of this plan is to restore a balance of small shipments between trucks and railroads," Mr. Griffith explained. "The conference feels there is now an uneven balance and to correct that in the interest of national defense, the position of the railroads should be strengthened. The railroads have given the shippers every assurance that they will maintain present service and establish new service where there is genuine need and shipper support. Where railroads have an established service, we ought to support it."

Under the plan, he indicated, recommended routings would turn on known performance. "Traffic will follow service."

Such a program, on a nation-wide basis, it was said, would be designed to assist carriers economically by channeling sufficient traffic to each to enable each one to operate regular merchandise cars profitably. Such a plan, it was also stated, could not include motor carriers because they don't have through routes.

People in the News

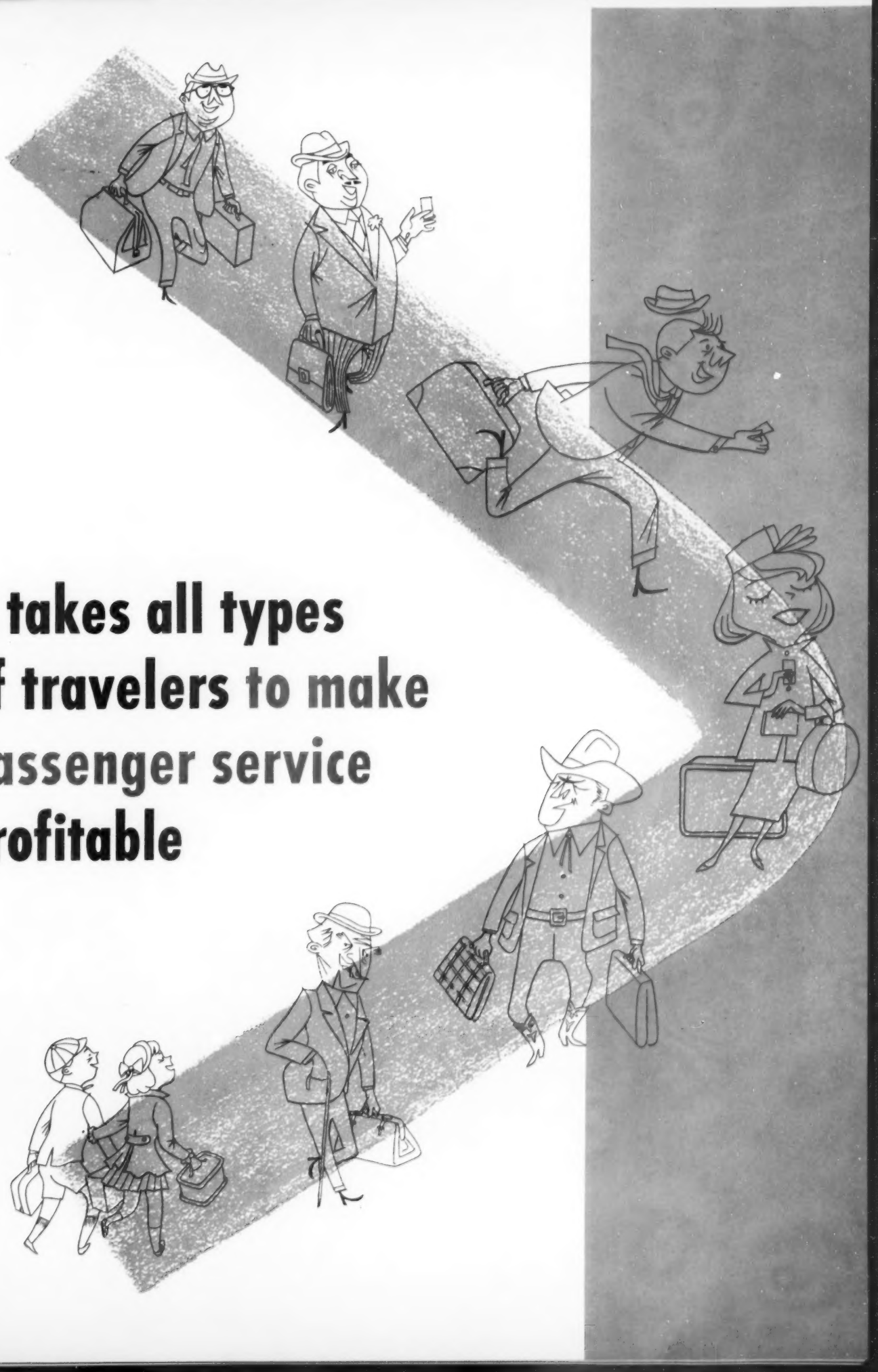
Jensen Leaves ICC

Clarence G. Jensen, whose retirement from directorship of the Interstate Commerce Commission's Bureau of Service became effective May 1, first joined the commission's staff more than 42 years ago.

He was born May 24, 1893, in St. Paul, Neb., and attended George Washington University in Washington. He entered ICC service in March 1912, served with the Army for three years in World War I and returned to the commission in May 1920. In July 1922 he became classification agent and in January 1930 was appointed assistant to director of the Traffic Bureau. He again served in the Army during World War II, returning as a colonel in March 1946, and in December of that year was named director of the Traffic Bureau.

Cox Is Successor—As reported in *Railway Age* April 26, Edwin H. Cox is Mr. Jensen's succesor in the bureau (*Continued on page 134*)

AN UNUSUAL HONOR was bestowed upon the Missouri Pacific by the city of De Soto, Mo., when it elected to feature the railroad on its 1954 motor vehicle sticker. Showing how the sticker appears on the windshield of her car is Miss Lena Boyer, whose father is with the MP at De Soto.



it takes all types of travelers to make passenger service profitable

and it takes all types of equipment to keep 'em happy!

For just plain relaxing, deluxe reclining seat coaches

Happy travelers are always the most profitable because *they* come back for more and bring their friends!

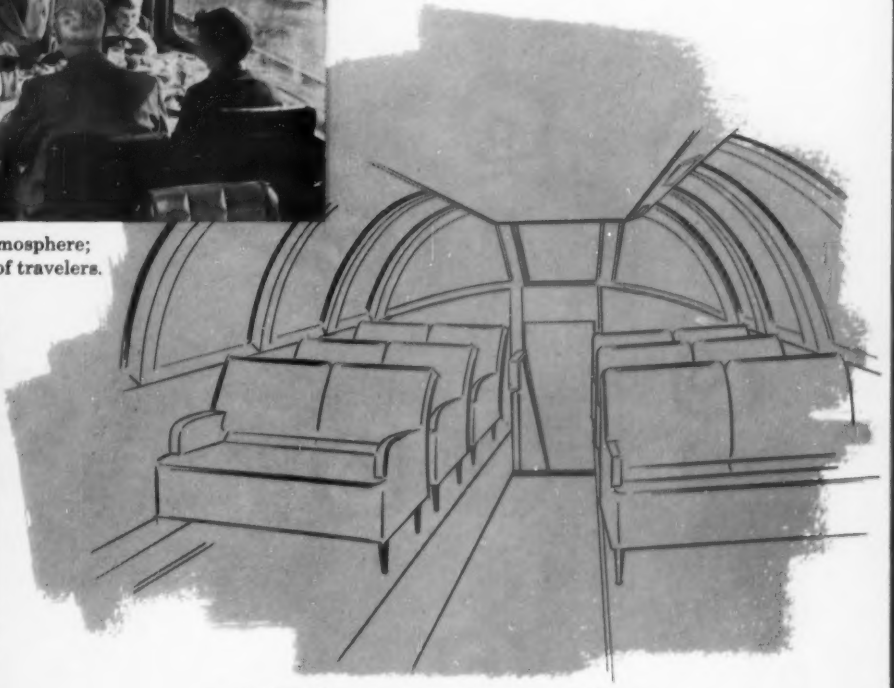
You've got to please 'em first! Some like the elegant luxury of a glass-enclosed observation car... some like a friendly game of bridge in the lounge car... some like a quiet conversation with an interesting new-found friend... some just like to relax.

Pleasing the traveler's whim is proving mighty profitable for some of America's Leading Railroads. In fact, many Railroaders have come to believe that it's the only way to beat the competition. Frankly, we're inclined to agree!

For quiet evening conversation, a club lounge car

An appetizing meal in a pleasant atmosphere; a trip by rail has appeal to all types of travelers.

Scenic enjoyment for all ages, in the coach or luxury observation-dome cars



Here's how the Union Pacific and Chicago and North Western plan to keep the customers happy. Shown here are views from some of the 127 cars now under construction at *G.C.F.*

it takes all types of talent...

to make quickly and economically the kind of equipment that consistently "rings the bell" at the ticket window.

Through many years of developing such equipment, a.c.f. has come to know the tastes and wants of travelers in all parts of the country. This knowledge, combined with unique production facilities and the courage to be different, has enabled a.c.f. to design and produce an entirely new kind of train that combines many conveniences for the customers, with lower operating and maintenance costs. It's the famous a.c.f. Talgo . . . now in its fourth year of profitable passenger service in Europe.

Your friendly a.c.f. Representative will be glad to help you with ideas and equipment facts that will help you attract more of America's travel dollars. American Car and Foundry Company, New York · Chicago · St. Louis · Cleveland Philadelphia · Washington · San Francisco.

a.c.f.

CAR BUILDERS TO AMERICA'S RAILROADS

A.A.R. APPROVED

Freight Car Trucks

proved
by millions
of service miles

SCULLIN STEEL CO.

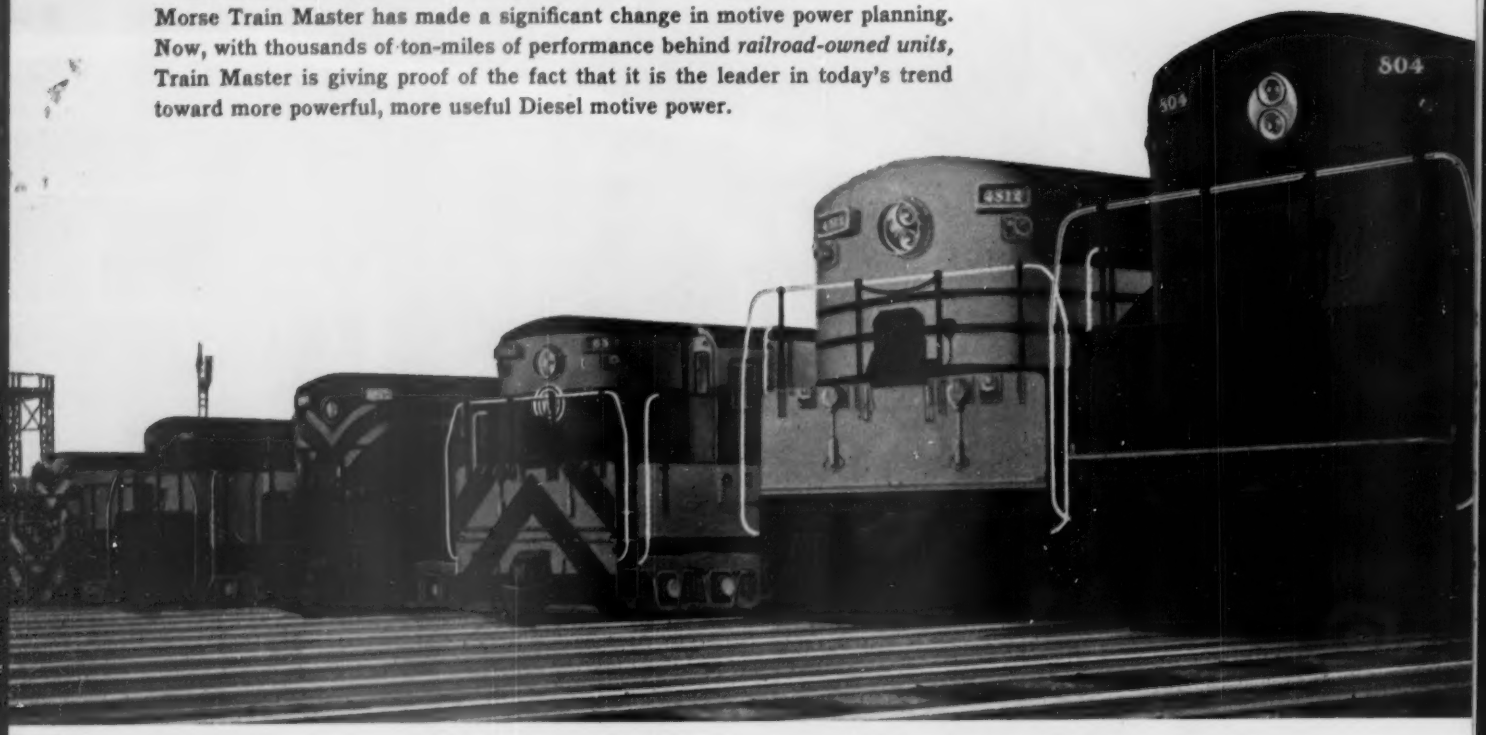
SAINT LOUIS 10, MISSOURI

STEEL CASTINGS MANUFACTURER

NEW YORK
CHICAGO
BALTIMORE
RICHMOND, VA.
CLEVELAND

Never before has a new design of locomotive won such wide and prompt acceptance! And this is acceptance measured in the only way that has meaning in the railroad industry—horsepower actually on motive power rosters.

Ever since the first units were purchased from blueprints, the Fairbanks-Morse Train Master has made a significant change in motive power planning. Now, with thousands of ton-miles of performance behind *railroad-owned units*, Train Master is giving proof of the fact that it is the leader in today's trend toward more powerful, more useful Diesel motive power.



TRAIN MASTER...

BASIC ADVANTAGES OF...

VERSATILITY

Train Master's ability to do any job on the road and do it better than the power it replaces is an outstanding advantage in today's railroading. Because of this versatility, TM can carry any regular assignment—and protect all other jobs as well. This assures better service to shippers, for example, by hauling more tonnage on faster schedules—and being able to handle terminal and transfer services as necessary.

Yes, check any service — Train Masters are *regularly* assigned to them all—and you'll find TM performance is unexcelled by any other locomotive on the rails today.

POWER

Heart of Train Master performance is the 2400 horsepower of the famous Opposed-Piston engine — the most reliable diesel engine in railroad service today. Unequaled in performance, the O-P engine has established a world-wide record for low maintenance. Its simple design, based on the 2-cycle principle, eliminates more than 40% of the moving parts found in other diesel engines. Eliminating the part eliminates the maintenance.

With the Opposed-Piston engine, rated at 200 horsepower per cylinder more than 10 years ago, the Fairbanks-Morse Train Master is the world's most powerful single-engine diesel locomotive.

... make TRAIN MASTER

your soundest motive power investment

...more than 150,000 HORSEPOWER in railroad ownership

Fairbanks, Morse & Co., 600 S. Michigan Ave., Chicago 5, Illinois

FAIRBANKS-MORSE

a name worth remembering when you want the best

DIESEL LOCOMOTIVES AND ENGINES • RAIL CARS AND RAILROAD EQUIPMENT • ELECTRICAL MACHINERY • PUMPS • SCALES • WATER SERVICE EQUIPMENT • HAMMER MILLS • MAGNETOS

TRAIN MASTER SPECIFICATIONS

MODEL

H24-66 2400 horsepower Road Locomotive.

POWER

1—12 cylinder Fairbanks-Morse Opposed-Piston 2-cycle engine. Rated 2400 horsepower at 850 RPM.

TRACTION MOTORS

6 heavy-duty, high-capacity motors, each with separate blower.

TRAIN HEAT

4500 lb./hr. capacity steam generator.

SUPPLIES

Fuel oil	1800 gallons
Lubricating oil	385 gallons
Engine cooling water	250 gallons
Train heating water	2400 gallons
Sand	48 cu. ft.

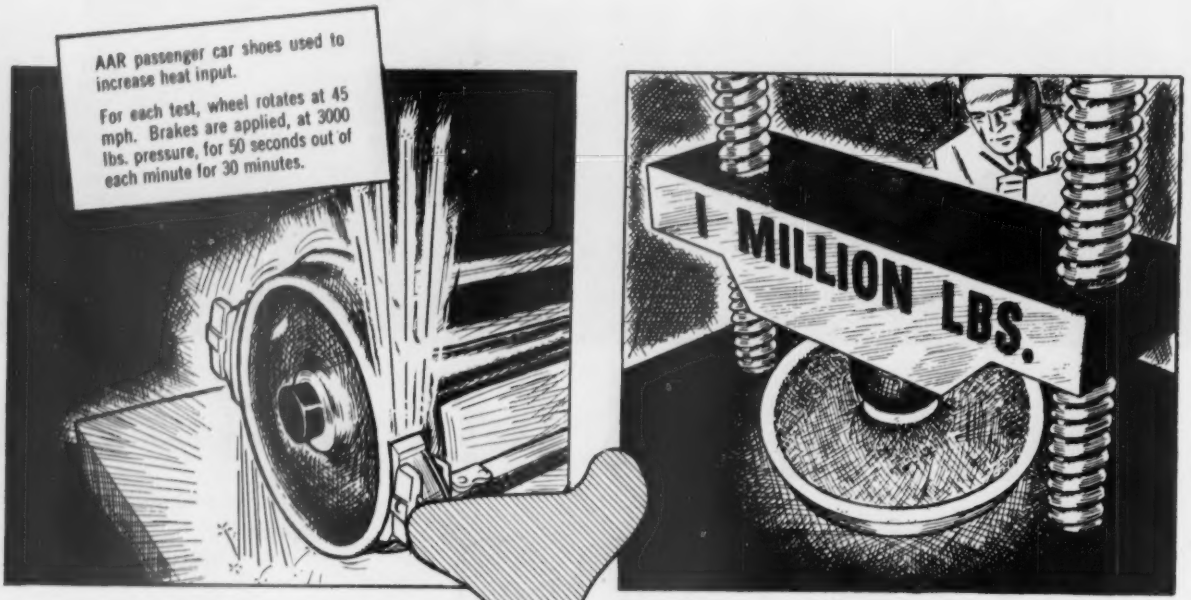
DIMENSIONS

Over-all length	66′ 0″
Over-all width	10′ 4½″
Over-all height	15′ 0″
Over-all wheelbase	49′ 4″
Wheel diameter	40″ or 42″
Maximum curve with train	27°

PERFORMANCE	**Pounds**
Starting tractive effort at 30% adhesion	112,500
Max. short-time tractive effort (4 min.)	108,000
Maximum continuous tractive effort	
Max. speed 66 MPH	79,500
Max. speed 69 MPH	75,700
Max. speed 75 MPH	69,800
Max. speed 79 MPH	66,500
Dynamic Brake	
Horsepower at 20 MPH	3400 hp.
Maximum braking effort	63,000

because of major design improvements

YOU CAN GET LONGER WHEN YOU SPECIFY



No thermal failures—after 10 drag tests representing far tougher conditions than ever found in freight service.

No plate failures after the capacity of the static plate testing machine was reached—1 million pounds on the back hub.

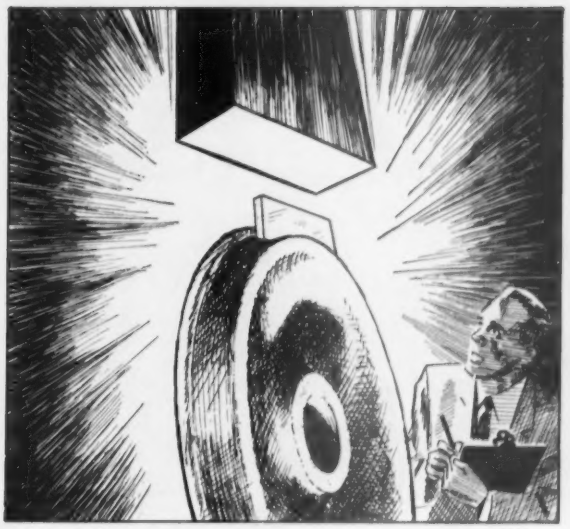
- ✓ No flange failure—after loading of over 600,000 pounds.
- ✓ No thermal cracks during unusually severe thermal and drag tests.
- ✓ No rim failures—after heavy impact tests.
- ✓ Long, sweeping fillets give stronger support under flange and rim.
- ✓ Heavier plate gives a greater factor of safety.
- ✓ No plate failure—with static load of 1,000,000 pounds.

Eleven modern plants—strategically located for service: Tacoma

WEARING CAR WHEELS THE GRIFFIN EQS

and the toughest tests prove it!

No flange failures—during test in which the flange was subjected to a static load of over 600,000 pounds.



No rim failures—after heavy impact tests. Multiple blows were directed at the same spot—1" from outer face of rim.

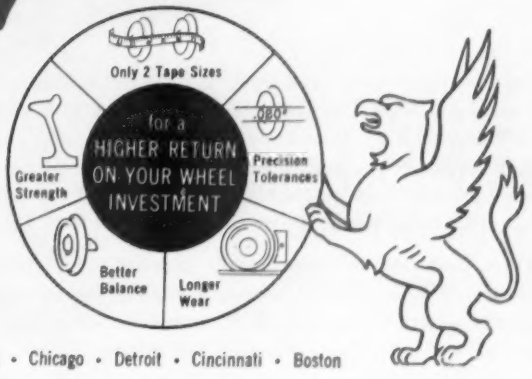
SPECIFY THE

GRIFFIN EQS ELECTRIC QUALITY STEEL

GRIFFIN WHEEL COMPANY

410 N. Michigan Avenue, Chicago 11

MEMBER

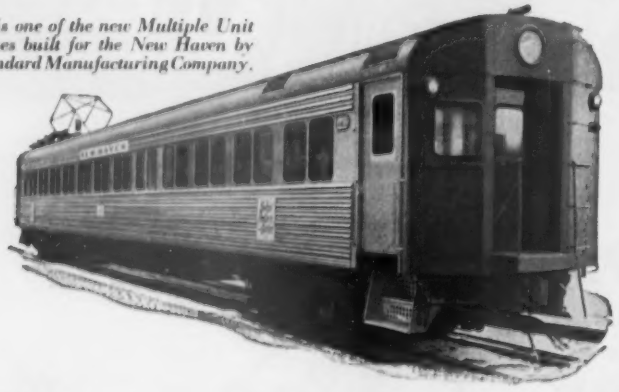


Los Angeles • Salt Lake City • Denver • St. Paul • Kansas City • Council Bluffs • Chicago • Detroit • Cincinnati • Boston

New Haven's 100 New multiple unit motor coaches have comfortable Heywood-Wakefield seating

The New York, New Haven and Hartford Railroad Co.

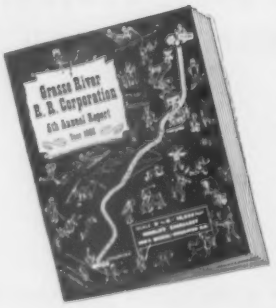
Shown here is one of the new Multiple Unit Motor Coaches built for the New Haven by Pullman Standard Manufacturing Company.



HEYWOOD-WAKEFIELD EST. 1826

Eighty-nine passenger coaches and seven baggage-coach combinations are equipped with Heywood's famous Model 1100 WC Commuter Walkover Seat. Four de luxe club cars also offer passengers the luxurious comfort of Heywood-Wakefield seating. All these coaches are in service on the electrified section of the New Haven Railroad running between New Haven and New York City.

Do you know Heywood owns the world's smallest 100% diesel-operated railroad? Upon request on your company's letterhead, we'll send a free copy of Grasse River R. R. Annual Report, a highly amusing account of a year's operation of this mighty midget.



Heywood-Wakefield
Transportation Seating Division
Gardner, Mass.
Orillia, Ontario, Canada

In Canada:
Railway & Power Engineering Corp., Ltd., Montreal

It began as an experiment—but paid off for everyone concerned. That's why

"Trailiner" traffic increases 3200%

Anyone who doubts the future of trailers on flatcars should take a long look at the New Haven's Trailiner service. Starting in 1938—when 1,506 trailers were shipped—it has mushroomed to the point where seven separate Trailiner trains carried 50,255 trailers between New York, Boston, Providence, Springfield and New Haven during 1953.

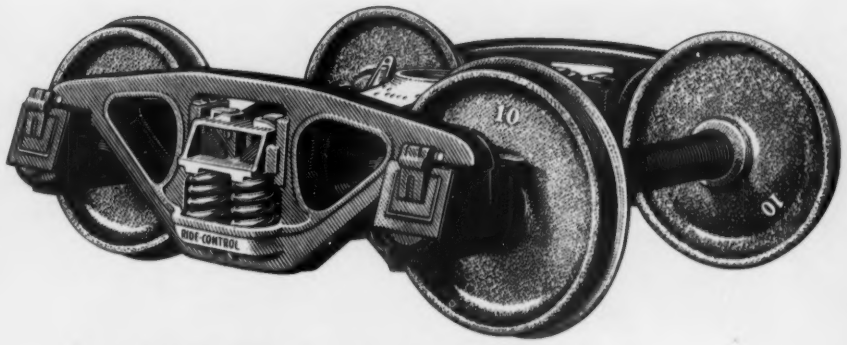
Dependable schedules are maintained by a fleet of 360 specially designed and constructed flatcars —all mounted on ASF Ride-Control Trucks. Result? Trailer and lading get a safe, smooth ride at almost passenger-train speeds. Using Ride-Control Trucks, experience has shown that if a trailer load rides safely to the New Haven yards, it rides safely on the flatcars.

And everybody benefits. The New Haven builds additional revenue. The truckers enjoy relief from highway hazards . . . they get balanced distribution of empties at lowest possible costs . . . and they've doubled the number of trailers used per tractor.

Today, Trailiner service is no longer an innovation. It's an outstanding example of progress . . . with two great transportation methods working together.

Trailiner flatcars receive greater utilization than practically any other freight cars in revenue service. The fleet of Trailiner cars will soon be enlarged with delivery of 100 new cars now on order. These new cars will also run on ASF Ride-Control Trucks—modified for use with roller bearings.

on the New Haven's "Iron Highway"



The "Trailiner" rides on

ASF

ride-control® trucks

AMERICAN STEEL FOUNDRIES

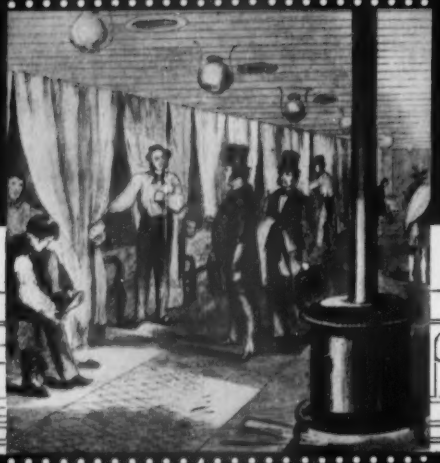
410 N. Michigan Avenue, Chicago 11, Illinois

Canadian Sales: International Equipment Co., Ltd., Montreal 1, Quebec

Does your car

heating remind

passengers of the



potbellied stove?

Today even your 3-year-old car heating systems are obsolete —unless they're Honeywell!

SLEEK passenger trains gliding over the nation's rails today are symbols of America's progressive railroad management. You see new, improved diesel engines . . . smoother road beds . . . more comfortable furnishings . . . stratadome cars.

But these modern changes point up the *one* feature that remains outmoded—*car heating.* Frequently it must remind passengers of the potbellied stove days!

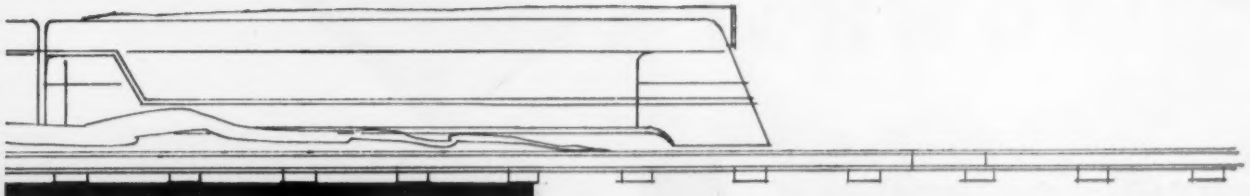
Honeywell started a revolution in car heating when it entered the railroad field just a few short years ago.

To improve the equipment then on the market, Honeywell developed a simple electronic control system to create *even* heat *throughout the car.* It did away with costly wasted steam . . . "heat pile-up" so irritating to passengers . . . and the inefficiency of equipment duplication that is so unnecessary *—and so expensive.*

Honeywell is a modern system—and will *stay modern* for a long time to come. You won't replace it in a few years because it's badly obsolete. Neither will you have to discard expensive equipment that wasn't necessary in the first place!

You replace other obsolete equipment, so why stick with outmoded, inefficient car heating? The savings from Honeywell lower operating and maintenance costs *are substantial.*

So review *your* car heating systems—Honeywell can be economically installed as a standard shopping procedure.

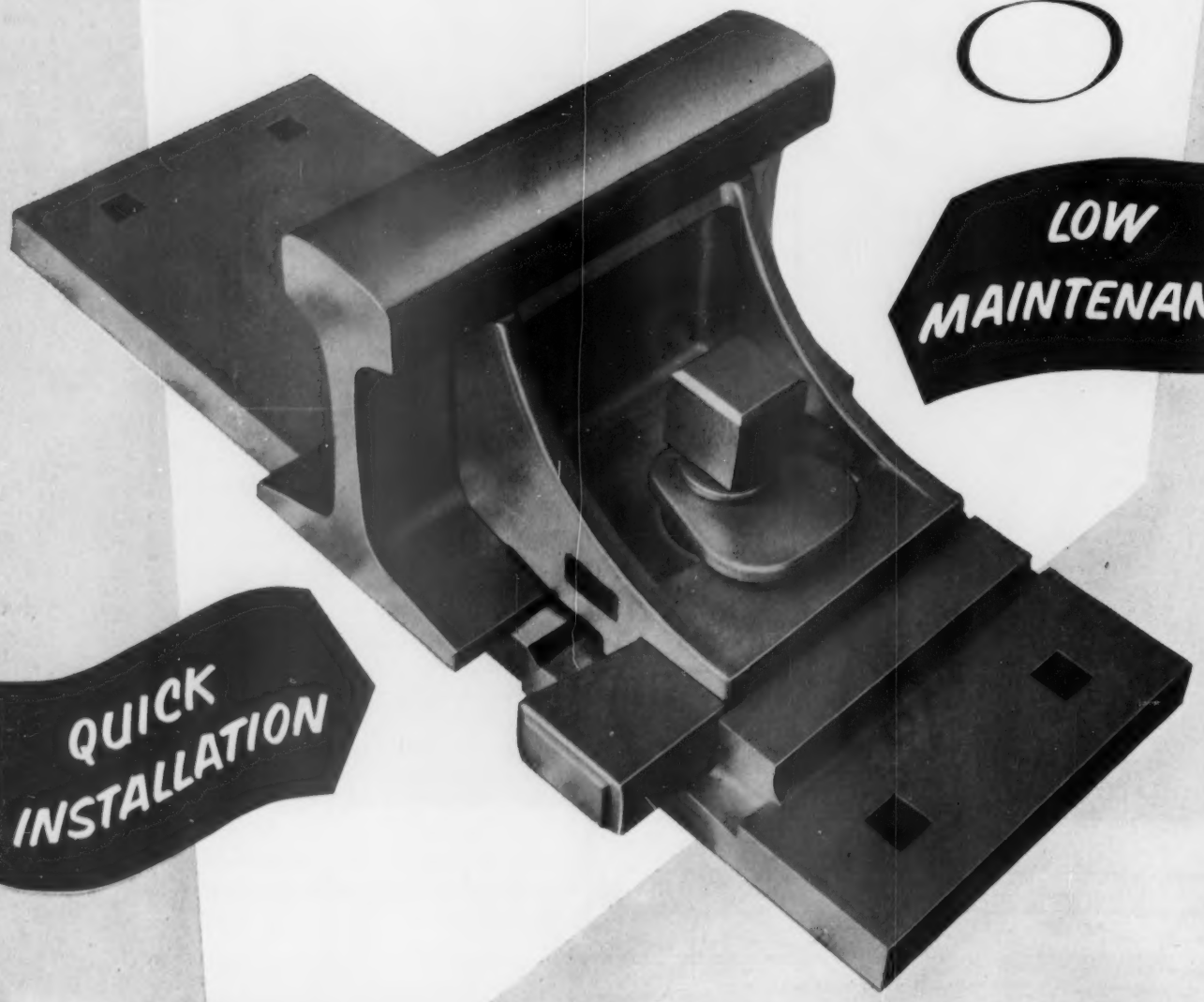


MINNEAPOLIS
Honeywell

Transportation Division

112 OFFICES ACROSS THE NATION

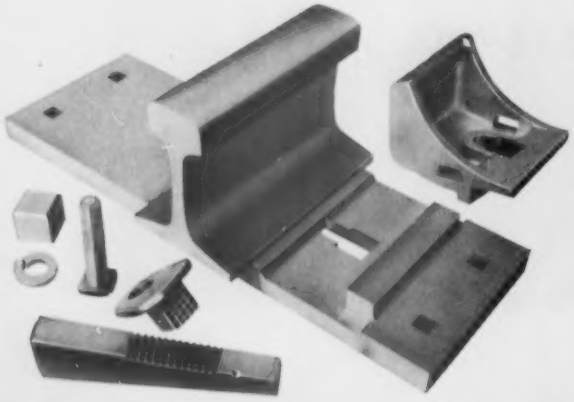
Introducing---



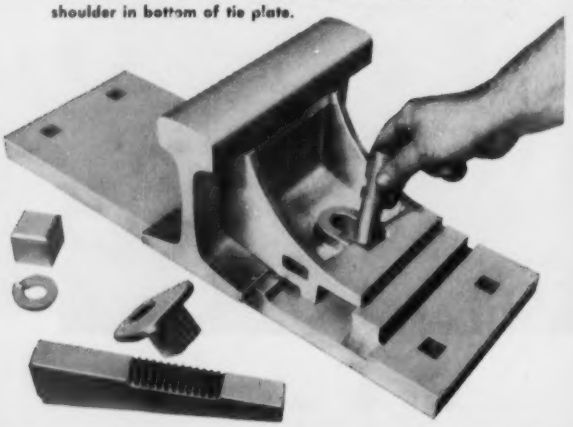
LOW MAINTENANCE

QUICK INSTALLATION

1. Assembly takes place after the rail is seated on the plate and plate has been spiked to the tie.



2. Brace is snugly fitted into the fishing of the stock rail. Bolt is then inserted from the top with the head down, moved in toward the rail until bolt head is positioned and held under shoulder in bottom of tie plate.



The New, Self-locking USS Taylor Adjustable Rail Brace

THE new Taylor Adjustable Rail Brace offers advantages found in no other rail brace. Combining the simplicity of good design with rugged construction, it insures sturdy rail support -- takes the repeated side thrusts of heavy, fast traffic without loosening, thus maintaining track gage and alignment.

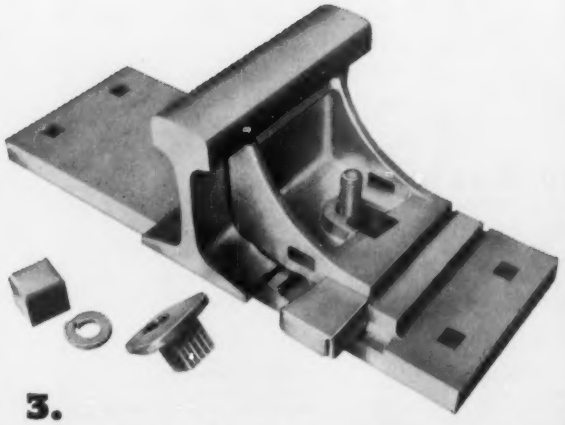
Installation is quick. Rail, tie and plate need not be disturbed. And once installed, the USS Taylor Adjustable Rail Brace is *locked* in position. Even if the cap nut becomes loosened, the locking plate with its serrations interlocking those of the wedge will continue to hold the wedge in the proper position. The bolt serves merely as an anchor for the locking plate plug, while the cap nut and shielded locking plate protect the bolt threads against corrosion.

Maintenance on this type of brace is rarely necessary The efficient design of the Taylor Adjustable Rail Brace results in less wear, a minimum of adjustment and longer service life. When adjustment is required (due to wear), the locking plate plug is simply lifted and the wedge tapped in with a hammer.

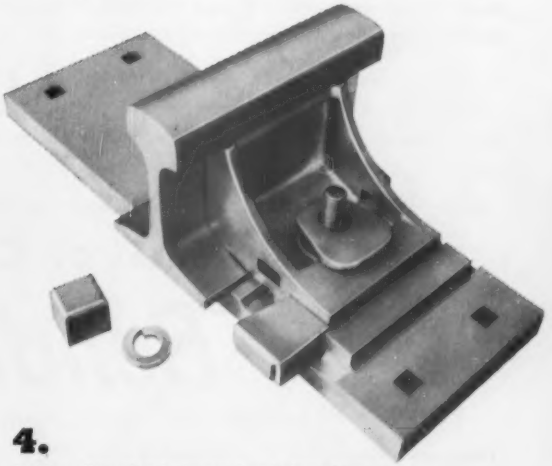
For further information, write to United States Steel Corporation, 525 William Penn Place, Room 4372, Pittsburgh 30, Pennsylvania.

UNITED STATES STEEL CORPORATION, PITTSBURGH • COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO • TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA.
UNITED STATES STEEL EXPORT COMPANY, NEW YORK

USS TRACKWORK



3.
Wedge is then driven tight with its serrations facing the rail. Opposite side of wedge is inclined to fit the undercut face of the stop block.



4.
Locking plate plug is dropped on bolt and into hole in brace. Serrations on outer face of plug engage those of the wedge, while inner smooth face of plug engages the vertical shoulders of the brace. Spring washer is then placed on bolt, and cap nut is applied and tightened.

USS

UNITED STATES STEEL

FROM MOUNTAIN PEAK...TO SEA LEVEL

Bendix Railroad Radio Speeds Freight Movement

From caboose to engine . . . from train to train . . . from wayside to train . . . from dispatcher to train . . . modern Bendix* Radio speeds freight, and aids in reducing operating cost.

Freight classification is speeded. Longer freights move faster with fewer delays enroute. Break-downs and emergencies get immediate attention.

Single track more efficient

Single tracks can handle larger volume both ways. Better "meets" and change of "meets" made immediately.

Every operating man is aware of changes in movements immediately from the time the freight leaves the yard until it reaches destination.

Bendix Radio means "*speed with safety*" for the lading, the train and the crew itself.

It had to come

A railroad will be better able to meet competition when it has its own radio network. Look around you . . . and see the other progressive roads that have led in this advance either by their own development ideas or by application.

And when you look . . . look toward Bendix, electronic pioneers in radio communication for the transportation industry. Bendix is the name millions trust.

MANUFACTURERS OF CENTRALIZED RADIO CONTROL

Bendix Radio

* REG. U. S. PAT. OFF.

DIVISION OF BENDIX AVIATION CORPORATION • BALTIMORE 4, MD.

Chicago Sales Office: 188 W. Randolph St. Chicago 1, Ill.

West Coast Sales: 10900 Magnolia Blvd. N. Hollywood, Calif.

Export Sales: Bendix International Division 205 E. 42nd Street New York 17, N. Y., U.S.A.

Canadian Distributor: Aviation Electric, Ltd. 200 Laurentian Blvd., Montreal, Quebec

Next time, park your worries!

Take it easy—
GO PULLMAN

Comfortable, Convenient and Safe

Have a "Rent-a-Car" waiting for you. Ask your ticket agent.

"HANDLE-WITH-CARE" PARTS TRAVEL SAFELY

in freight cars cushioned with "RAILWAY" SPRINGS

Many of the shocks occasioned when freight travels over a rough section of roadbed are never transmitted to delicate and valuable products being shipped in the cars. Why? Because the dependable shock-absorbing qualities of long travel "Railway" springs cushion the load, protecting the carrier's responsibility—and maintaining the shipper's good will!

For longer life for your rolling stock and reduced roadbed maintenance costs, equip your cars with "Railway" long travel springs. Your Alco sales representative will be glad to give you full information about them.

RAILWAY STEEL-SPRING DIVISION

AMERICAN LOCOMOTIVE COMPANY

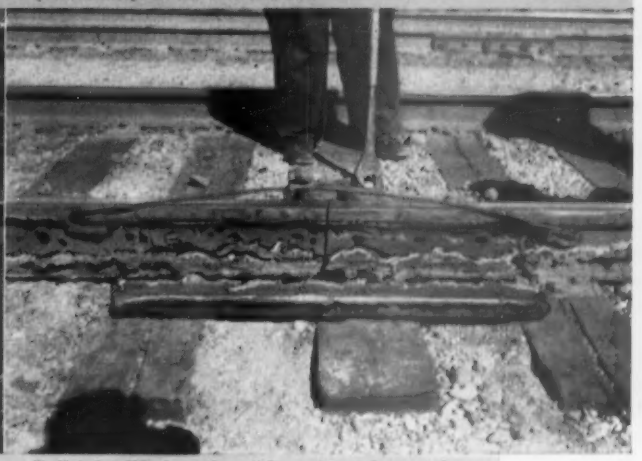
NEW YORK • CLEVELAND • CHICAGO
RICHMOND • ST. LOUIS • ST. PAUL
SAN FRANCISCO

Dearborn NO-OX-ID won't let this happen!

Rail bases are easy prey for destructive brine drippings. Stop this attack . . . and minimize costly replacements . . . with NO-OX-ID protective coatings. Ask for Bulletin 3007.

Rusty gauge rods cannot be readily adjusted. NO-OX-ID prevents deterioration due to ruinous rust and corrosion . . . particularly on the shoe end.

Steel bridges weakened by rust cost money. NO-OX-ID rust preventives protect metal surfaces everywhere. Get Bulletin 3009-A.



Rail joint life is reduced by rust and corrosion. NO-OX-ID coatings protect metal, seal out corrosion . . . conserve labor and materials.

GIVE THE GREEN LIGHT TO PREVENTIVE MAINTENANCE

Many leading railroads rely on Dearborn NO-OX-ID rust preventives to reduce maintenance costs wherever metal is used: in storage, on bridges, structures, track, signals, water tanks, pipeline. Consult your Dearborn engineer. His broad railroad experience plus Dearborn's extensive research and laboratory facilities can save you important money.

opens a new era of train travel in Canada

There's new travel comfort on the CNR! Canadian National's record purchase of new passenger equipment comprises coaches, sleeping, parlor and dining cars and dinettes, a total of 359 units. By mid-summer they will all be in service on Canadian National trains across Canada.

This smart new equipment adds appeal to Canadian vacation destinations served by Canadian National — in the Provinces by the Sea, Quebec, Ontario, the Prairies, the Canadian Rockies and on the Pacific Coast.

It's easy to plan a budget vacation on one of Canadian National's inclusive Maple Leaf Tours. Any CNR agent will give you particulars or package a tour for you to include side trips, stopovers, visits with friends. Offices in principal United States cities; in Canada, Passenger Dept., 360 McGill Street, Montreal, Que., or see your Travel Agent.

CANADIAN NATIONAL SUMMER RESORTS

Jasper Park Lodge in the Canadian Rockies	June 5-Sept. 15
Minaki Lodge, Lake of the Woods region, Ontario	June 25-Sept. 7
Pictou Lodge, Pictou, Nova Scotia	June 26-Sept. 7

359 MODERN CARS FOR CANADIAN NATIONAL TRAVELLERS

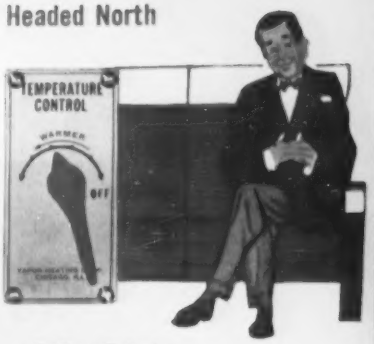
CANADIAN NATIONAL RAILWAYS

THE ONLY RAILWAY SERVING ALL TEN PROVINCES

He-Man Stuff

No heat for this Roomette Rider. At home he sleeps with the windows wide open.

Headed North



Cooling off slowly after a glorious vacation.

You Please All Room-Car Passengers All The Time With SELECTIVE VAPOR Moduzone HEATING

Nighttime Norm

For those who like that "extra blanket" feel.

Mother Set This

All the comforts —snug and warm—and happy.

The Great Compromise

Temperature for two! Settings are infinitely variable.

Some Like It Hot

Whatever the preference, Moduzone meets it.

ONLY WITH **MODUZONE** CAN PULLMAN OR ROOM-CAR PASSENGERS SELECT THE HEAT THEY PREFER FOR COMFORT

31½% LIKE IT WARMER . . .

37% WANT IT COOLER . . .

THAN NORMAL "STRAIGHT-THROUGH" CAR TEMPERATURE

Actions speak louder than words in this latest Vapor Survey of individual room-temperature control. Instead of asking leading questions, we checked the positions of Vapor Moduzone heat-selection controls in Rooms and Roomettes in actual use to get facts about personal heat preferences on Vapor Moduzone cars throughout the United States and Canada.

For a true cross-section of climates, wind, sun, this survey covered room-cars on the following lines: Great Northern, L & N, G M & O, Canadian Pacific, Canadian National, Union Pacific, and North Western. Typical findings: a Roomette-Bedroom car showed daytime setting variations from 1/10 to 9/10 of full heat. Morning inspection showed nighttime selections from full-on to full-off. In the entire survey, each car proved that individual passengers enjoy being able to follow their own ideas of temperature comfort in their own rooms.

Because people are people—at home, at work, on trains—only *selective* Vapor Moduzone can satisfy the wide range of preferences. Passengers reach the end of a run really "fresh for the day's work." Comfort ranks with on-time schedules as your No. 1 advantage. You make the most of it with Moduzone.

VAPOR

HEATING CORPORATION

80 EAST JACKSON BLVD., CHICAGO 4, ILLINOIS

NEW YORK • ST. PAUL • DENVER • ST. LOUIS • ATLANTA • WASHINGTON • PHILADELPHIA

SAN FRANCISCO • HOUSTON • JACKSONVILLE • RICHMOND • MONTREAL • LOS ANGELES

$250,000 research laboratory dedicated
to solution of the hotbox problem

Renewed effort is being put into the fight on the costly hotbox problem. Spurred on by the insistence of the railroads for better performance of journal bearings, National Bearing Division of American Brake Shoe has put into operation a new $250,000 research laboratory to make exhaustive studies of the problem. The new facility is located at Mahwah, New Jersey.

Brake Shoe's reputation for research, especially in the railroad field, is well known. Its first efforts date back many years to the time its principal products were brake shoes, car wheels, journal bearings and trackwork. This new research project is in keeping with the company's desire to maintain the quality and reliability of its products as well as to be of service to the railroad industry.

Lubrication a major problem

Railroad men—both in research and at the operating level—have long recognized that where adequate quantities of clean oil are carried to the bearing surface, the solid journal bearing is an efficient and practical device. Starting with this knowledge, studies are being made to determine weaknesses in present methods of lubrication as well as explore new methods.

History of hotbox recorded

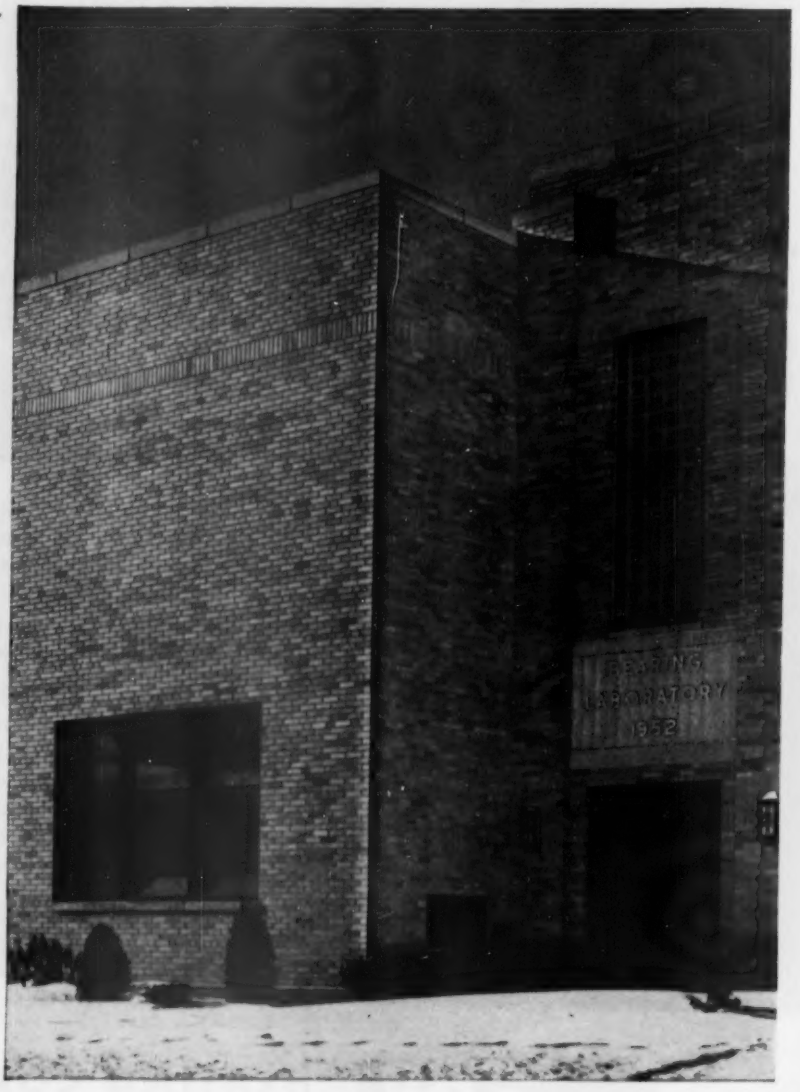
Tests on actual freight cars in operation are slow and data difficult to gather. Now, under controlled laboratory conditions, accurate histories of hotboxes are being charted. A specially built bearing test machine accurately tells just what happens inside the journal box at all different speeds and loads, and under various conditions.

Speed-load studies among first

With these unmatched facilities, National Bearing engineers can simulate actual car loading. A loaded freight car weighing in at 80 tons (far above average) would place about 18,850 pounds of weight on each of its eight bearings. To duplicate this in the laboratory, each bearing is saddled with a pendulum extending 20 feet below the test room and is capable of being loaded up to 20,000 pounds. Intricate controls and accurate recording devices are beginning to tell a story that can only mean improvement.

Bearings made to fry, freeze

The opening guns are trained on the multiple problem of temperature of the lubricant in the journal box, temperature of the journal bearing and the friction developed. The fact that outside temperature plays a part is obvious. Freight cars on American railroads may be subject to desert heat or arctic cold of northern winters. To simulate any likely operating condition,



the test room of the laboratory can be dropped to 40 degrees below zero or raised to a scorching 125 degrees.

Destruction tests planned

By destruction tests under controlled conditions, the engineers are finding out just how much the bearings will take and what causes them to fail. A few hours of such tests reveal results that would take thousands of miles of actual car operation. As new facts are uncovered, improvements will be incorporated into new and more efficient products.

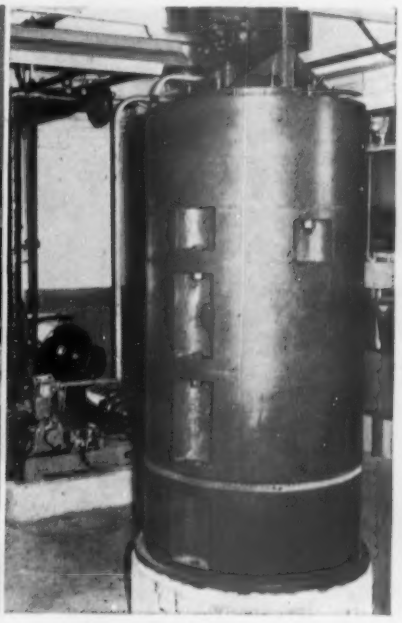
Periodic reports planned

Graphs and charts of findings are being compiled and interpreted daily. Reports will be coming your way soon . . . reports in the form of improvements to help lick the hotbox problem and lower your operating costs.

If you would like additional information about the new research laboratory, write to National Bearing Division, 4930 Manchester Avenue, St. Louis 10, Missouri.

Scientists dress for the occasion when making sub-zero tests.

Finger-tip control and automatic recording devices insure reliable data.



Dead-weight loading pendulums simulate actual loading conditions.

AMERICAN Brake Shoe COMPANY

NATIONAL BEARING DIVISION

4930 Manchester Avenue, St. Louis 10, Mo.

WELCOME TO *New England*

For the vacationer, New England's got everything!

When you are asked about New England, the answer is the Boston and Maine's many and varied all-expense tours — well-planned, economical, delightful.

Mountains — seashore — lakes and rivers — all varieties of sports — thriving cities — gay resorts — beautiful and varied scenery — wonderful summer climate...

And all within an area that can be covered in *a day's travel!*

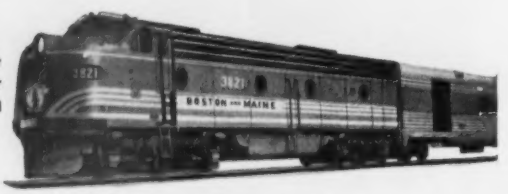
Everybody enjoys Northern New England!

Boston and Maine's new, modern Budd Highliners are fast and comfortable.

Send to W. C. Daly, Boston and Maine Passenger Traffic Department for details of tours and other information.

"MINUTE MAN SERVICE"

All Boston and Maine through passenger trains are diesel powered.



BOSTON and MAINE RAILROAD

Now...Pittsburgh Alkali and Acid-Resistant CARHIDE

PROTECTS NEW B & O COVERED HOPPER CARS

One of the covered hopper cars finished with Pittsburgh's alkali- and acid-resisting CARHIDE for the Baltimore and Ohio Railroad Company.

PITTSBURGH'S alkali-and acid-resistant CARHIDE now makes possible an entirely new degree of protection against the effects of cargoes which quickly destroy ordinary finishes.

This remarkable coating for covered hopper, refrigerator and tank cars has been used with great success by a number of leading railroads. It has been tested for periods of from one to six years with highly satisfactory results.

Such tests have demonstrated that ladings of soda ash, sulphur, phosphates, cement, lime, common salt, alkalis, crude oil and alcohol will not affect it. These have also shown high resistance to abrasion as well as to repeated scrubbing.

This type of CARHIDE dries as quickly as lacquer, permitting you to maintain one-day finishing schedules.

If your line has cars that are used to carry corrosive materials, it will pay you to investigate this alkali- and acid-resistant CARHIDE. Call on us for suggestions and advisory service that may save you time and money.

PITTSBURGH PLATE GLASS CO., Industrial Paint Div., Pittsburgh, Pa. Factories: Milwaukee, Wis.; Newark, N. J.; Springdale, Pa.; Atlanta, Ga.; Houston, Texas; Torrance, Calif.; Portland, Ore. Ditzler Color Div., Detroit, Michigan. Thresher Paint & Varnish Division, Dayton, Ohio. Forbes Finishes Division, Cleveland, Ohio. M. B. Suydam Div., Pittsburgh, Pa.

Pittsburgh Railway Finishes For Every Need

CARHIDE—for wood and metal freight cars of all types.

Hot-Spray CARHIDE—provides twice as much paint in one application.

LAVAX SYNTHETIC ENAMELS—for locomotive and passenger cars.

STATIONHIDE — adds beauty and attractiveness to stations.

IRONHIDE—for iron and steel fixed properties.

SNOLITE—white *fume-resistant* paint for signs, crossing gates, fences and cattle guards.

PITTSBURGH PAINTS

PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS • FIBER GLASS

PITTSBURGH PLATE GLASS COMPANY

IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED

INTRODUCING IN CANADA!

"Scenic Domes" FOR YOUR TRAVEL COMFORT

Upstairs and downstairs... See Canada the modern way

Soon you'll ride in Canadian Pacific "Scenic Dome" Lounge-Sleepers and "Scenic Dome" Buffet-Coaches—streamlined, all-stainless-steel cars that will be the first of their kind in Canada! You'll see all Canada... from the upper level observation domes as well as from the lower level lounge and coach space. You'll relax in air-conditioned comfort in these magnificently appointed cars. Watch for the "Scenic Domes" —your new cars of the very-near-future—soon to be introduced in Canada by Canadian Pacific!

ANOTHER CANADIAN PACIFIC "FIRST" IN CANADA

SCENIC-DOMES ON THE SCENIC BANFF-LAKE LOUISE ROUTE

MONTREAL - VANCOUVER
TORONTO - VANCOUVER

Highlights of the new "Scenic-Dome" Canadian Pacific trains include:

More lounge space than ever before—for coach, tourist car and standard sleeping car passengers.

Enclosed toilet and separate washing facilities in drawing-rooms, compartments and bedrooms.

Filtered, purified, electrically-refrigerated drinking water.

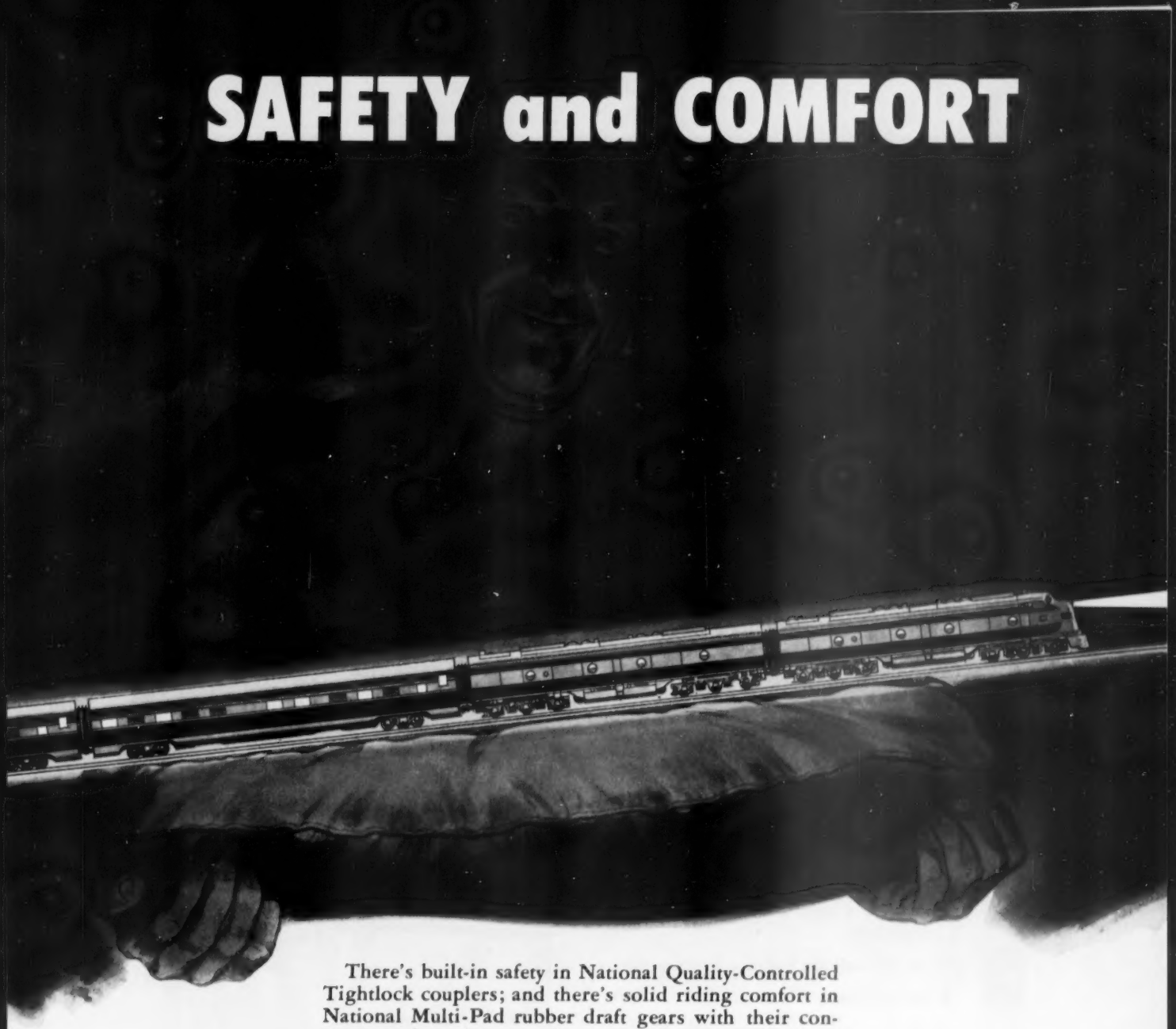
Fold-away beds in all enclosed accommodation provide full daytime space.

Public address and music systems.

Ultra-modern, individual-car decor.

Canadian Pacific

SAFETY and COMFORT



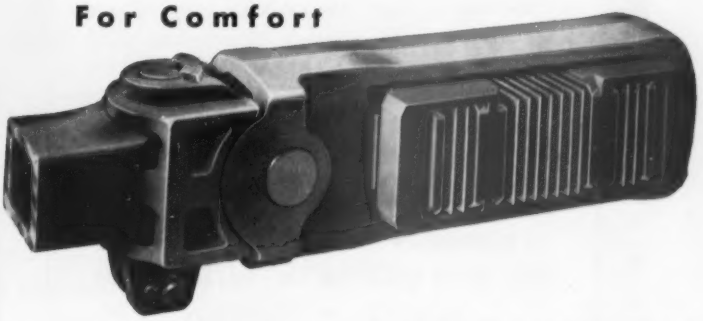
There's built-in safety in National Quality-Controlled Tightlock couplers; and there's solid riding comfort in National Multi-Pad rubber draft gears with their consistent and continuous cushioning, whether in pull or buff.

A-9665

For Safety

National Quality-Controlled Tightlock couplers and yokes

For Comfort



National Multi-Pad rubber cushioned draft gears

National Multi-Pad rubber gears fit all Standard AAR yokes and standard car construction!

NATIONAL MALLEABLE and STEEL CASTINGS COMPANY

Cleveland 6, Ohio

COUPLERS · YOKES · DRAFT GEARS · FREIGHT TRUCKS · SNUBBER PACKAGES · JOURNAL BOXES AND LIDS

COAST LINE'S GREATEST TOUR VALUES

Champion VACATIONS

DE LUXE FLORIDA TRIPS AT NEW LOW PRICES

- Coast Line's new "Package Tours"
- Priced to fit any budget and every taste
- "Champion Vacations" cost as little as $19 (for 7 days and 6 nights in an ocean-front hotel) plus railroad fare
- For thousands who long for a Florida vacation
- For honeymooners
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See, write or phone nearest ACL Passenger Office

COAST LINE'S SUMMER TRAINS

MIAMIAN • EAST COAST CHAMPION
WEST COAST CHAMPION • HAVANA SPECIAL
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THE ONLY DOUBLE TRACK ROUTE BETWEEN THE EAST AND FLORIDA

Summer Time Also is Coast Line Time

FIRST IN FLORIDA TRAVEL

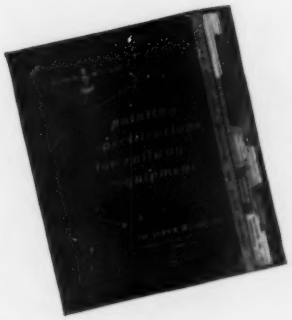
ATLANTIC
COAST LINE
RAILROAD

LESS NEED TO BE...
if the paint's S-W!

Structural steel seven stories up is a costly painting project to undertake very often. That's why the Reading Railroad specified a Sherwin-Williams two-coat system for repainting the train shed of its Philadelphia passenger terminal.

They started with Sherwin-Williams heavy-duty KROMIK® Primer . . . the primer that includes red lead and three other protective pigments, too. They finished with Sherwin-Williams SILVERBRITE® Aluminum . . . a ready-mixed paint of exceptional brilliance, uniformity, durability and ease of application.

Whatever your painting problems . . . inside or out . . . you'll find S-W Maintenance-of-Way Finishes specially engineered for the job. Consult your Sherwin-Williams Representative, or write The Sherwin-Williams Co., Transportation Division, Cleveland 1, Ohio.



Your guide to better engineered finishes for rolling stock

Latest recommended systems for finishing all types of equipment from Diesel locomotives to cabooses are covered in a new series of Sherwin-Williams brochures. Ask for copies relating to your equipment.

SHERWIN-WILLIAMS

RAILWAY FINISHES


LOCKED
IN
PLACE...

A.A.R. APPROVED
FOR UNLIMITED
USE IN INTERCHANGE

...when PLYPAK provides

HOT BOX

prevention

Protect journals with PLYPAK and most lubrication failures can be avoided. PLYPAK holds waste firmly in place under even the most adverse operating conditions. Pumping action of the PAK, squeezing and releasing the waste while the car is in motion, prevents glazing of the waste against the face of the journal. This action also tends to loosen accumulations of dirt in the waste allowing it to settle beneath the PAK while the waste is kept saturated with clean oil drawn up through slots in the bottom of the PAK. Result: A marked reduction in the incidence of hot-boxes on cars equipped with PLYPAK.

Your inquiry invited.

PLYPAK WASTE RETAINER

WAUGH EQUIPMENT COMPANY

420 LEXINGTON AVENUE, NEW YORK 17, N. Y.

CHICAGO — ST. LOUIS — CANADIAN WAUGH EQUIPMENT COMPANY, MONTREAL

Streamlite HAIRINSUL
lasts the life of the car

LOW CONDUCTIVITY... Thoroughly washed and sterilized, all-hair heat barrier. Rated conductivity —.25 btu per square foot, per hour, per degree F., per inch thick.

LIGHT WEIGHT... Advanced processing methods reduce weight of STREAMLITE HAIRINSUL by 40%.

PERMANENT... Does not disintegrate when wet, resists absorption. Will not shake down, is fire-resistant and odorless.

EASY TO INSTALL... Blankets may be applied to car wall in one piece, from sill to plate and from one side door to the other. Self-supporting in wall sections between fasteners.

COMPLETE RANGE... STREAMLITE HAIRINSUL is available ½" to 4" thick, up to 127" wide. Stitched on 5" or 10" centers between two layers of reinforced asphalt laminated paper. Other weights and facings available.

HIGH SALVAGE VALUE... The all-hair content does not deteriorate with age; therefore has high salvage value. No other type of insulation offers a comparable saving.

...and adds LIFE to your perishable cargo

When you call for STREAMLITE HAIRINSUL to be installed in new refrigerator cars you are making a wise, one-time investment because . . . it lasts the life of the car!

Yes . . . and you are actually adding life to valuable shipments of perishables through their safeguarded protection against sudden and extreme temperature changes with STREAMLITE HAIRINSUL . . . the dependable all-hair insulation that weighs 40% less . . . and does so much more!

More Reasons why refrigerator car builders prefer STREAMLITE HAIRINSUL are listed at left. There are many more! Write for complete data.

Write to
Merchandise Mart
Chicago 54

Streamlite AMERICAN HAIR & FELT CO. HAIRINSUL

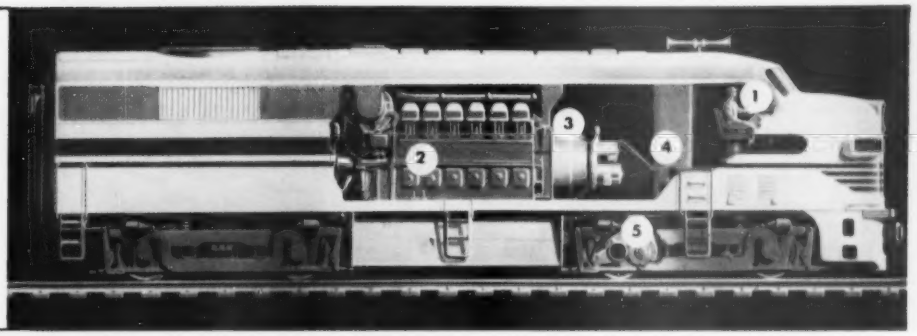
SETS THE STANDARD BY WHICH ALL OTHER REFRIGERATOR CAR INSULATIONS ARE JUDGED


KEY TO RAILROAD PROGRESS . . . ELECTRICAL PIONEERING
4201
4201
By the time Junior grows up, pioneering by the railroads and companies like General Electric to bring better service will show advancements as great as the step from steam to the modern diesel-electric.
GENERAL ELECTRIC

ELECTRICITY TURNS THE WHEELS OF MODERN LOCOMOTIVES

HOW IT WORKS

In a diesel-electric, when engineer moves throttle (1), diesel engine (2) turns generator (3), producing electricity. Control unit (4) sends electricity to axle-mounted traction motors (5) which turn wheels.



HOW RAILROADS PUT ELECTRICITY TO WORK TO GIVE YOU A FASTER, SMOOTHER RIDE

G-E electrical pioneering speeds railroads' bold program to make service even better

The locomotive of today, the diesel-electric, uses electricity to turn the wheels. This smooth-flowing, easily-controlled electric power gives diesel-electrics the versatility either to haul mile-long freights easily or speed crack passenger trains at 80-115 mph . . . with greater economy than ever before.

AN EXPERIMENT THAT PAID OFF. Just 30 years ago, when General Electric supplied the generator, traction motors and control for the nation's first diesel-electric, this type of motive power was often regarded as another "experiment." But the railroads were quick to see the advantages of this new application of electric power, and through the years have boldly invested in diesel-electrics. During these years General Electric developed and perfected G-E equipment for this new type of motive power. Other G-E products—from electric switch heaters to giant generating equipment—help the railroads make even better the vital services they render to the country.

G.E. HELPS FURTHER RAIL PROGRESS. As the nation grows, railroads haul more people, more freight. And as rails grow, G-E research and engineering will further this progress, just as it has since 1878, when Edison put electricity to work for railroads in his Menlo Park Express.
General Electric Co., Schenectady 5, N. Y. 115-1

Progress is our most important product

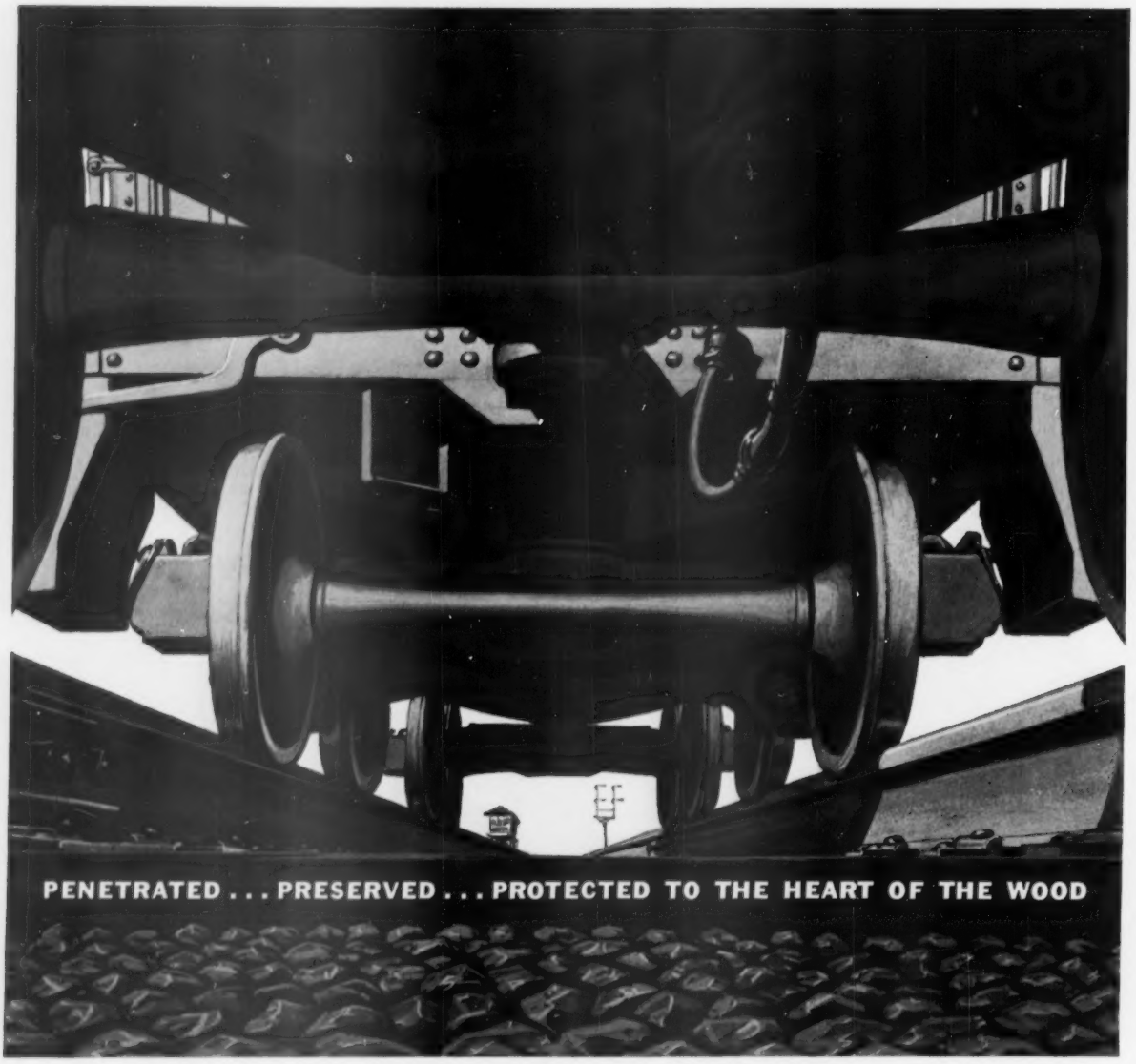
GENERAL ELECTRIC

BATTLE OF GIANTS on the Milwaukee Road, 1925. In this test of power, G-E straight electric locomotive (electrics have been used by railroads since 1893) won tug-of-war against two steamers.

1st DIESEL-ELECTRIC, built for Central R.R. Co. of New Jersey in 1924, was powered by G-E motors and control, and is still in service. Today, reliable General Electric equipment is used on locomotives all over the world.

G.E.'S CONTINUING SEARCH for a better way to turn the wheels (like test of new traction motor, above) has resulted in new developments like improved insulation and sealed traction motor bearings, all of which will make tomorrow's railroading even better.

THIS IS THE FIRST in a series of messages appearing in news and railroad magazines to give the public a better understanding of the vital role played by the nation's railroads in our everyday lives.



Let's get down to earth

And what could be closer to the earth, or a more basic part of your business than the ties your rolling stock travels over? No one needs to tell you what a big investment ties represent. They deserve the best protection possible . . . the protection guaranteed by treating them with Barrett Coal-Tar Creosote. Barrett Creosote has saved millions of dollars every year by protecting ties, pilings and poles all over the world, under all climatic conditions. It can give your ties a life-span of over thirty years.

Why take chances? When you specify Barrett Coal-Tar Creosote you are getting the leader in the constant fight against insects and the elements . . . protection *proved* in over 100 years of use!

Check these advantages—

- *tested and proved by over 100 years' experience*
- *defies rot, insects, marine borers*
- *does not react with wood to impair strength*
- *weather-proved in all climates*
- *retards checking and brooming*

BARRETT DIVISION, Allied Chemical & Dye Corporation, 40 Rector St., N. Y. 6, N. Y.

Chemical Progress Week—May 17-22
A Better America Through Chemical Progress

1854 1954 CENTENNIAL Barrett 100 YEARS OF EXPERIENCE

BARRETT CREOSOTE

RAILROAD MANAGEMENT! HERTZ OFFERS YOU

decreasing

you know these facts

According to actual returns for the first 10 months of 1953 and estimates for the last 2 months, "passenger-miles declined by about 7%. And, according to best estimates for 1954, gross revenues will be under the 1953 total perhaps by 10 per cent."(*)

*Railway Age, Jan. 11, 1954

you also know that competition to railroads is largely responsible for this decrease in revenue . . . and your biggest competitor is inter-city driving!

HERTZ RAIL-AUTO PLAN IS A most SUCCESSFUL SOLUTION!

It has already switched millions of passenger miles to the railroads . . . and it can switch millions more in 1954!

It is estimated that in 1953 motorists drove close to 500 billion miles between cities. Analysis shows that they drove these hazardous tiring miles . . . NOT because they preferred to drive . . . BUT many times because they needed a car at their destination! And remember —this staggering potential of 500 billion miles has hardly been tapped! Now is the time to switch more of this huge mileage to the Hertz Rail-Auto Plan.

Last year alone, people who rented cars from Hertz at their destination actually traveled more than 136,000,000 miles on railroads. These were people who used the Rail-Auto Plan. And—thousands more can be switched to this Plan.

A STRONG PLAN TO COMBAT passenger revenue!

HOW YOU CAN HELP PROMOTE THE HERTZ RAIL-AUTO PLAN . . . HELP SWITCH ADDITIONAL REVENUE TO YOUR RAILROAD

1 **TRY** the Rail-Auto Plan yourself. Enjoy its many advantages. See for yourself why thousands of travelers prefer it to highway travel.

2 **TELL** your ticket agents about the 10% commission Hertz pays them. Urge them to ask passengers this simple question: **"May I reserve a car from Hertz at your destination?"** It takes only a few minutes to fill out the reservation forms . . . and the Hertz station concerned will pay—promptly—10% commission on the total rental charge.

3 **FREE!** To remind your passengers of Hertz Service and the Rail-Auto Plan, Hertz provides plastic 3¼" signs attractively printed with these words: **"Reserve your Hertz Rent-A-Car from your ticket agent."** These signs clamp on the grill of your ticket agents' windows.

Hertz also provides for the counters of your ticket agents and for ticket envelopes, small 2" x 4½" folders describing Hertz Service and the Rail-Auto Plan. Both items are available to you in any quantity at no charge.

4 **HERTZ** now spends $1,000,000 a year in leading national magazines to sell the Rail-Auto Plan. In your own advertising, *promote* the Plan. *Show* its many advantages. Use *displays* in your ticket offices. *Advertise* the Plan in your timetables . . . on your *billboards* . . . highway *over-passes.*

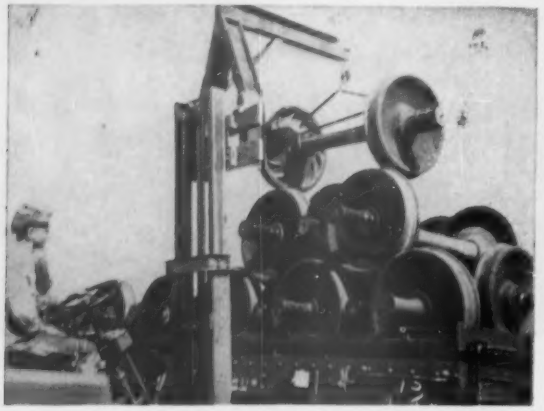
5 **AND REMEMBER**—only Hertz—the world's largest rent-a-car system—offers 30 years' experience . . . with more than 8,600 cars at nearly 800 stations in over 550 cities throughout the world. Every car is new, clean . . . and Hertz furnishes all gasoline, oil . . . Public Liability, Property Damage, Fire and Theft Insurance, and $100.00 deductible collision protection—at no extra cost! And remember—Hertz has more than 1,500,000 people who hold Hertz Charge Cards and Courtesy Cards. Also, Hertz honors Rail Credit Cards.

6 If you have any questions—WRITE today for additional information . . . reservation forms and other material that your ticket agents can use.

HERTZ *Rent-A-Car* **SYSTEM** Dept. D54, 218 S. Wabash Ave., Chicago 4, Ill.; phone: WEbster 9-5165

How one machine SAVES MONEY in many different ways!

Your Maintenance Shop becomes truly a gold mine of sizable savings when you put Clark fork trucks on the job! For full information phone your Clark dealer—listed in the Yellow Pages of your directory.

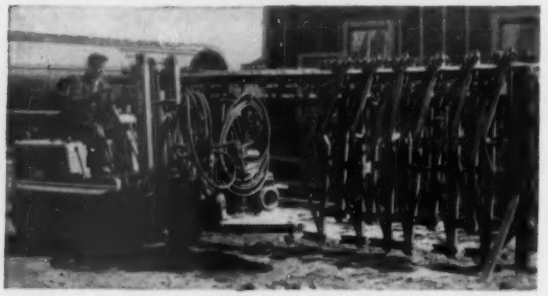


Fast, safe way to unload carwheels—what used to be a hazardous, tedious operation is quick and easy for a Clark truck with crane attachment.

Take wheels from storage direct to the job—special platform with axle-saddle carries 2200-lb. wheel-axle unit.

Spotting wheels for installation—same platform attachment doubles as a crane, sets wheels-and-axle in A-frame for completing truck repair.

Mounting a new coupler—quick, easy: the Clark takes all the hazard out of this job—as well as 80 per cent of the time!

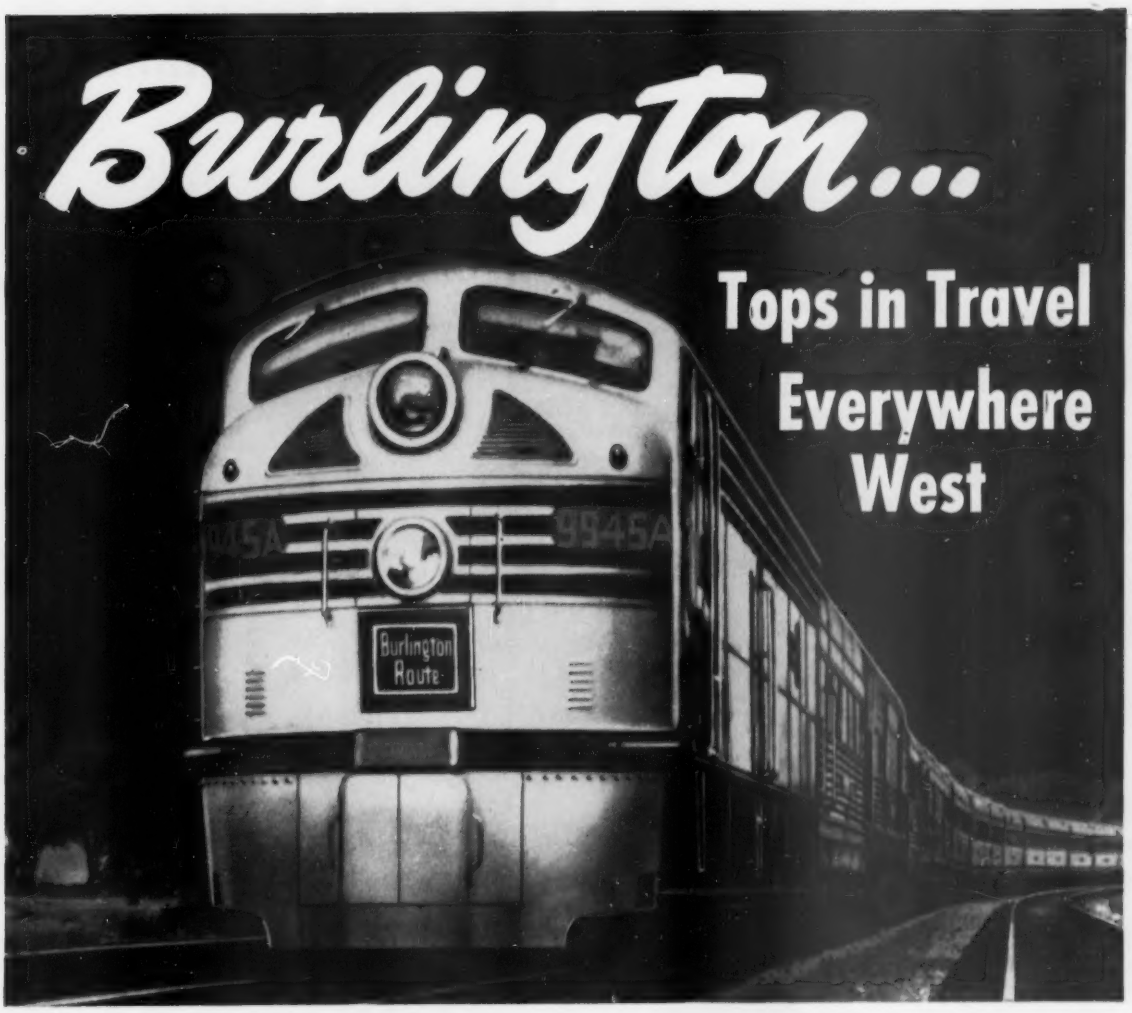


Paging the air jacks—delivering 50-ton air jacks where they are needed, two pair at a time on that same handy platform attachment.

Customer-made scoop for scrap, snow or other bulk material—supporting framework, made of scrap brake beam channels, fits on the forks. (Standard production scoop attachments are available.)

CLARK EQUIPMENT

Industrial Truck Division
CLARK EQUIPMENT COMPANY
Battle Creek 24, Michigan



Extra Comfort . . . Extra Pleasure . . . No Extra Fare!

These are three good reasons why smart travelers Go Burlington

• Burlington's luxurious trains deliver real travel pleasure Everywhere West. New travel thrills abound on such famous Burlington trains as the Denver Zephyr . . . the *California Zephyr . . . the Nebraska Zephyr . . . the Ak-Sar-Ben Zephyr . . . the *Twin Zephyrs . . . the *Kansas City Zephyr . . . the *American Royal Zephyr . . . the Zephyr Rocket . . . the Silver Streak Zephyr . . . the Texas Zephyr . . . the Sam Houston Zephyr . . . the Black Hawk . . . the Empire Builder . . . the North Coast Limited . . . the Western Star . . . the Mainstreeter.

No wonder thousands of travel-wise Americans say . . .
"Burlington is Tops in Travel Everywhere West!"

*Featuring Vista-Dome Cars

BURLINGTON LINES · *Everywhere West*

Chicago, Burlington & Quincy Railroad
Colorado and Southern Railway
Fort Worth and Denver Railway

Way of Zephyrs

Burlington Route

Protection

for cars and lading

WESTINGHOUSE
FRICTION DRAFT GEARS
Certified A. A. R.

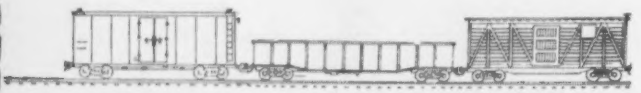
ABSORPTION

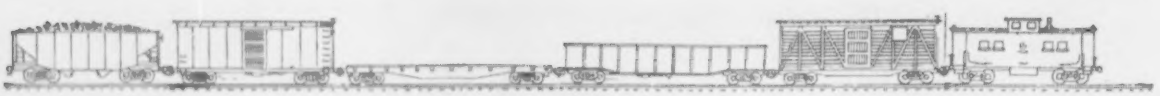
ENDURANCE

CAPACITY

STURDINESS

CARDWELL FRICTION
BOLSTER SPRINGS
Short or Long Travel





Cardwell Westinghouse Co., Chicago
Canadian Cardwell Co., Ltd., Montreal

287 R

Travelers' Favorite

THE Challenger STREAMLINER

This newest of western streamliners is fast becoming the No. 1 choice of California-bound travelers. And why not? Just look what it offers . . .

NO EXTRA FARE

Only 39½ Hours to Los Angeles

FULL LOUNGE CAR

ECONOMY MEALS Three meals for $2.50

Modern Pullman Rooms and Berths

Full Length Leg Rest Coach Seats

Just One Night En route

Also for Your Travel Pleasure

The DAILY Streamliners

- City of LOS ANGELES (NO EXTRA FARE)
- City of SAN FRANCISCO (EXTRA FARE)
- City of PORTLAND (NO EXTRA FARE)
- City of DENVER (NO EXTRA FARE)

Monday, Tuesday, Wednesday
are economy days on the new, liberal
FAMILY TRAVEL PLAN

and the Streamliners
TWIN CITIES "400" and NORTH WESTERN LTD.
to St. Paul-Minneapolis

CHICAGO AND NORTH WESTERN SYSTEM

CHICAGO AND NORTH WESTERN RAILWAY SYSTEM

SAVE UP TO $1,000.00

ON YOUR NEXT GAS FORK TRUCK PURCHASE

BAKER "Yardloader" 4000 POUND CAPACITY

Here's a fork truck built for rugged outdoor service. Large pneumatic tires, exceptionally high ground clearance and oscillating rear axle permit its operation on unimproved or semi-improved ground surfaces. Powerful heavy-duty industrial engine, extra-heavy drive axle, and 4-speed transmission assure ample power for rough work. Travel speed approaching 14 MPH in high gear enables it to cover large areas efficiently. It's safe and easy to operate, featuring convenient controls, automotive type steer and excellent driver visibility. Hydraulic lift permits stacking to 122 inches.

But the outstanding feature of the Yardloader is its amazing low price—about 25% under any other gas truck in its capacity.

Get all the facts—and save up to $1000.00 on your next gas fork truck.

Send in this coupon today.

THE BAKER-RAULANG COMPANY

1255 West 80th Street • Cleveland 2, Ohio

The Baker-Lull Corporation • Subsidiary, Minneapolis, Minn.
Materials Handling and Construction Equipment

TO THE BAKER-RAULANG CO., 1255 West 80th St., Cleveland 2, Ohio

Please send me information and specifications on the new Baker EY-40 Yardloader which sells for only $2985.00.

Name_____ Title_____

Company_____

Address_____

City_____ State_____

Route 'em Katy Southwest

ON THE FAMOUS STREAMLINED

Texas Special

Luxury sleeping car and coach accommodations, nationally famous diner meals please every taste, every budget. Friendly, attentive service in an atmosphere of restful comfort. Through sleeping cars to and from New York, Washington and the Metropolitan East, via the St. Louis gateway.

Daily between St. Louis and San Antonio

SOUTHBOUND		NORTHBOUND
	FRISCO R. R.	
Lv. 5:30 pm	St. Louis Ar.	8:10 am
Lv. 5:40 pm	Tower Grove Ar.	7:50 am
Lv. (44) 5:51 pm	(46) Webster Groves (44) Ar. (39)	7:37 am
Lv. 8:01 pm	Newburg Ar.	5:28 am
Lv. 10:40 pm	Springfield Ar.	2:55 am
	M-K-T R. R.	
Ar. 2:05 am	Muskogee Lv.	11:30 pm
Ar. 3:24 am	McAlester Lv.	10:10 pm
Ar. 5:05 am	Denison Lv.	8:35 pm
Ar. 6:19 am	Greenville Lv.	7:16 pm
Ar. 7:18 am	(46) Highland Park* (44) Lv.	6:18 pm
Ar. 7:30 am	Dallas Lv.	6:10 pm
Lv. 7:45 am	Union Station Ar.	5:55 pm
Ar. 7:35 am	Fort Worth Lv.	5:10 pm
Ar. a10:35am	Wichita Falls Lv.	b3:45 pm
Ar. 9:40 am	Waco Lv.	4:00 pm
Ar. 12:01 pm	Austin Lv.	1:42 pm
Ar. 1:55 pm	San Antonio Lv.	12:01 pm

a Change at Denison to Train 31.
b Train 32 from Wichita Falls arrives Denison 7:50 pm connecting with Train 2.
(46) No baggage checked for this train to and from points designated.
(44) Stops on signal to pick up revenue passengers for Oklahoma and Texas.
(39) Stops to let off revenue passengers from Texas and Oklahoma.

ON THE DE LUXE

Bluebonnet

Luxurious bedroom accommodations between Kansas City and Fort Worth, roomettes and bedrooms between Kansas City and Dallas, de luxe lounge car, traditionally superb Bluebonnet diner meals. Dallas and Fort Worth passengers particularly appreciate the "just right" overnight Bluebonnet schedule. You retire at your usual bedtime, arrive refreshed and rested.

Short line between Kansas City and the principal cities of Texas

SOUTHBOUND		NORTHBOUND
Lv. 9:40 pm	Kansas City Ar.	8:35 am
Ar. 6:05 am	Denison Lv.	12:01 am
Ar. 8:25 am	(46) Highland Park* (46) Lv.	9:28 pm
Ar. 8:40 am	Dallas, Union Station Lv.	9:20 pm
Ar. 8:45 am	Fort Worth Lv.	9:05 pm
Ar. a10:35am	Wichita Falls Lv.	b3:45 pm
Ar. 12:01 pm	Waco Lv.	6:00 pm
Ar. 3:05 pm	Austin Lv.	2:40 pm
Ar. 5:30 pm	San Antonio Lv.	12:25 pm

a Change at Denison to Train 31.
b Train 32 from Wichita Falls arrives Denison 7:50 pm connecting with Trains 2 and 8.
(46) No baggage checked for this train to and from points designated.

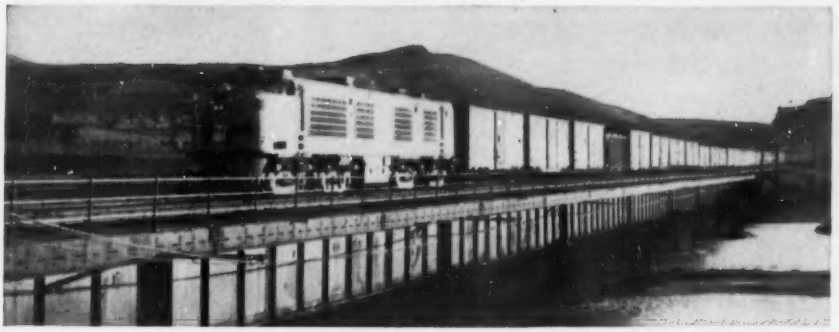
M-K-T Missouri Kansas-Texas
THE KATY RAILROAD
NATURAL ROUTE SOUTHWEST

33-54

*Exclusive on the Katy... Convenient to Residential Section—Adjacent to Southern Methodist University • Avoid downtown traffic • Home sooner.

DELICIOUS KATY DINER MEALS are another inducement to go KATY. Diner crew pictured above, headed by veteran steward Raleigh Mull, 1953 Federation for Railroad Progress "Railroad Man of the Year" award winner, provides outstanding Food, Courtesy and Service which are typical of all Katy crews.

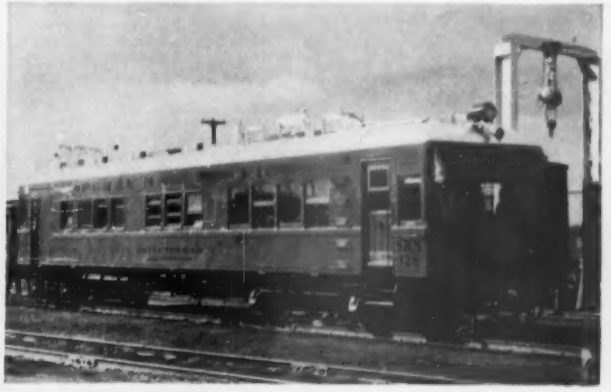
"Planned Safety" keynotes Union Pacific Rail Testing Program with Sperry Rail Service



In maintaining almost 10,000 miles of main track, Mr. Perkins and his staff have found adequate rail testing to be the best answer to control of rail failures due to defects. U.P. tests all main line main tracks and the majority of their branch line main tracks. The less important branches subject to test are covered by Detector Car at least once a year and some of the heavy traffic main lines as often as ten times a year, the interval depending upon speed and density of traffic and general rail condition. Photo shows one of U.P.'s new gas-turbine-electric locomotives crossing the Green River, Wyoming.

"Constantly heavier loads and higher speeds place an increasing burden on the rails, and track safety is more important today than ever before," says W. C. Perkins, Chief Engineer of Union Pacific. "U.P. bases its testing program on the premise that rail defects will occur. The best defense is to test often enough to locate defects while small . . . before rapid or sudden growth to failure has started."

"Planned safety" has paid off in the outstanding record achieved by Union Pacific. U.P. has also won the coveted E. H. Harriman Memorial Gold Medal Award of the American Museum of Safety twelve times since 1924. Alert to every opportunity to maintain and improve its standards of service and safety, Union Pacific utilizes the latest research and engineering techniques to examine and test every possibility for improvements.



Sperry Detector Car 128 is shown above testing on Union Pacific track. 1954 marks the 19th year of Sperry rail testing for U.P. Because the Sperry Induction Detector Cars consistently detect more and smaller defects than any other method of testing rail in track, they have increased the efficiency and economy in this vital function. Research on new and improved techniques, plus experience gained through more than 2,000,000 miles of rail testing, is also important in Sperry's performance record.

Other Sperry services contributing to railroad operating efficiency and economy are Sperry Ultrasonic Detector Cars for testing within joint bar limits; the Sperry Reflectogage for spot-testing; and the Sperry Ultrasonic Reflectoscope for the non-destructive testing of wheels, axles and other vital parts of locomotives and cars.

Sperry

FIRST IN RAIL TESTING

SPERRY RAIL SERVICE

Division of Sperry Products, Inc.

Danbury, Conn.

New York Chicago St. Louis

Reprint No. 01-801

EDWARDS EQUIPPED...

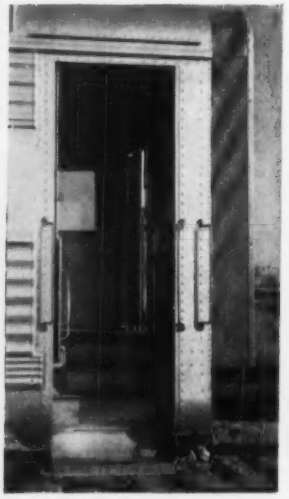
NEW YORK CENTRAL'S FAMOUS 20th CENTURY LIMITED

Typical of the modern streamliners whose builders specify Edwards equipment for peak operating efficiency, long, trouble-free service and maximum passenger satisfaction.

PICTURE WINDOW VISIBILITY

No Fog
No Film
No Frost

No fog — no film — no frost to obstruct the view, just perfect passenger visibility. The reason is Edwards Double Glazed Sash — "the eyes of transportation" — specified for its modern design and superior construction by leading lines.



STREAMLINED RETRACTABLE STEPS AND TRAP DOORS

Edwards streamlined trap doors and retractable steps combine full balancing action with 6-way adjustment. Operational efficiency is stepped-up . . . original installation is precise, easy, economical. Units are available in steel, aluminum, stainless steel or a combination.

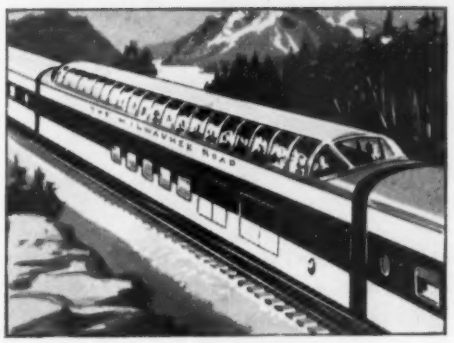
For specifications and complete data, write:
The O. M. Edwards Co., Syracuse 4, N. Y.
New York Office — 50 Church St., N. Y. 7, N. Y.

EDWARDS SASH
THE EYES OF TRANSPORTATION

SASH FOR EVERY TYPE OF TRANSPORTATION — ON LAND, ON THE SEAS, IN THE AIR

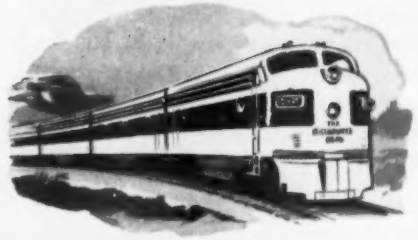
are keys to

PASSENGER PROGRESS



Looking back through 1953, we of The Milwaukee Road can count many improvements designed to attract passenger traffic.

10 new Super Dome cars that are proving a hit on the AM and PM Twin Cities HIAWATHAS and the transcontinental Olympian HIAWATHA. We credit to the dome cars a substantial increase in traffic to Yellowstone Park via Gallatin Gateway.



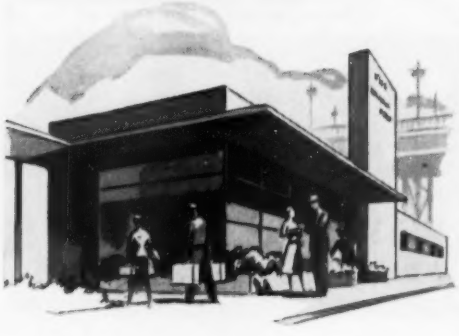
A faster schedule between Chicago and Seattle-Tacoma on the Olympian HIAWATHA.

100% dieselization or electrification of through passenger trains.

Money saving Family Fares, adopted last year, are now on a broader base that effects even greater economy for family groups.

Ever-increasing numbers of student educational tours that build business for today and the future.

A handsome new passenger station in Tacoma; new city ticket office in Seattle; improved facilities at other points.



The Milwaukee Road intends to keep "out in front" in its program of winning more passengers for the rails. Harry Sengstacken, Passenger Traffic Manager.

THE MILWAUKEE ROAD

...The ROCKETS

■ Rock Island is justifiably proud of its fleet of ROCKETS. These modern, diesel-powered, smooth-gliding trains have given America a new (and much more satisfying) definition of train travel. If you would experience train travel at its best—coach, Parlor Car or Pullman—our suggestion is that you note below the territory served by the ROCKETS, then when business or pleasure says go . . . *ride a ROCKET!*

PEORIA ROCKET
Chicago—Peoria

DES MOINES ROCKET
Chicago—Des Moines

CORN BELT ROCKET
Chicago—Omaha

TEXAS ROCKET
Kansas City—Ft. Worth

ROCKY MOUNTAIN ROCKET
Chicago—Denver—Colorado Springs

TWIN STAR ROCKET
Minneapolis—St. Paul—Kansas City—Houston

ZEPHYR ROCKET
Minneapolis—St. Paul—St. Louis

. . . also the GOLDEN STATE
Chicago—Kansas City—El Paso—Tucson—Phoenix—Palm Springs—Los Angeles

Rock Island

ROCK ISLAND LINES
The Road of Planned Progress

Every Engine Crew Knows...

When the Pinion Bearing "Goes" the Train Must Stop...*and Quick!*

Squeezed into the tight space between the drivers, the pinion and commutator bearings of diesel-electric locomotives must be both compact and sturdy.

During long hours between lubrications and servicing, they operate under high torque loads and rapid stress cycles . . . complicated by sun, engine-room heat and blower air. If they do overheat and seize, the damage is usually severe.

That's why such a great number of the 21,000 diesel-electric locomotives now in use are equipped with Rollway Right-Angle Roller Bearings. Every one is made with *roller-riding cages,* plus *larger, longer, crowned rollers* for minimum internal friction and heat . . . for greater capacity . . . for longer mileage!

ROLLWAY BEARINGS

Complete Line of Radial and Thrust Cylindrical Roller Bearings

Rollway Bearing Co., Inc.
Syracuse 4, N. Y.

SALES OFFICES

SYRACUSE	CHICAGO
CLEVELAND	PITTSBURGH
HOUSTON	DETROIT
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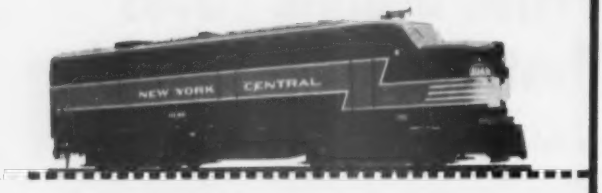
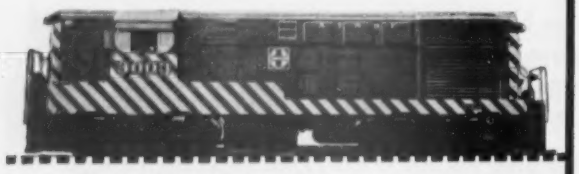
FAR-AIR*

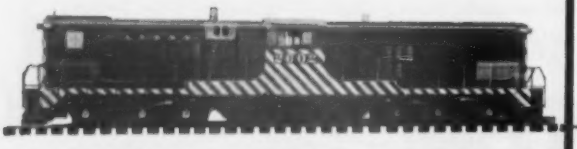
DYNAMIC GRILLES DO DOUBLE DUTY

1. Reduce Dirt and Snow Load

2. Add Beauty to Diesel Equipment





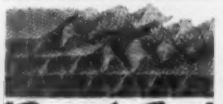


When installed over air intake filters on Diesel Electric and Gas Turbine locomotives, FAR-AIR Dynamic Grilles effectively deflect snow, dirt and other foreign particles, yet allow unimpeded entrance of air. The higher the air velocity passing the grille face, the greater the effectiveness.

Available in stainless or plain steel, FAR-AIR Dynamic Grilles add to the appearance and service life of any locomotive. This new Grille can be supplied in practically any size and for a variety of applications.

Farr engineers are always available to discuss special requirements, always glad to assist in solving difficult filtration problems. Write today for information on FAR-AIR Dynamic Grilles and other FAR-AIR railroad equipment.

FAR-AIR FILTERS



"Better by Farr"

*Trade Mark Reg.

FARR COMPANY

Manufacturing Engineers

CHICAGO · LOS ANGELES · NEW YORK

Mf'd under license by Control Equipment Co., Ltd., Montreal, Canada

NEW!

SPOT WELD without jigs or back-up plates

Now you can spot weld with complete maneuverability — and as fast as you can pull the trigger — with the new portable AIRCOSPOT® Gun.

With **AIRCOSPOT,** Air Reduction's new inert-gas-shielded spot welding unit, you simply touch the water-cooled gun to one side of the work and pull the trigger. In about a second you have a spot weld. It will be a good one, too, because **AIRCOSPOT'S** inert gas shield completely protects the hot metal from contamination by the air.

Write today for prices and folder that provides detailed information.

AIRCOSPOT welds all sheet steels — including stainless up to 3/32"—to bottom sections of varying thickness.

AIRCOSPOT is fast. Once the controls are set, you can make thirty or more welds a minute.

AIRCOSPOT is easy to use. Operators need no special training. The welding cycle is fully automatic.

AIRCOSPOT is handy. Gun weighs four pounds, is nine inches long. All connections—current, gas and water—are through a single control panel.

AIRCOSPOT is rugged. No abuse-sensitive high frequency or electronic circuits, because Gun is of electromechanical design.

at the frontiers of progress you'll find

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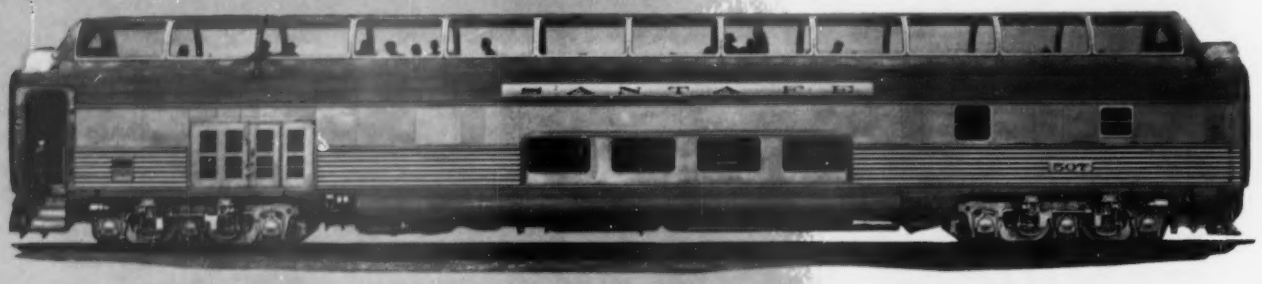
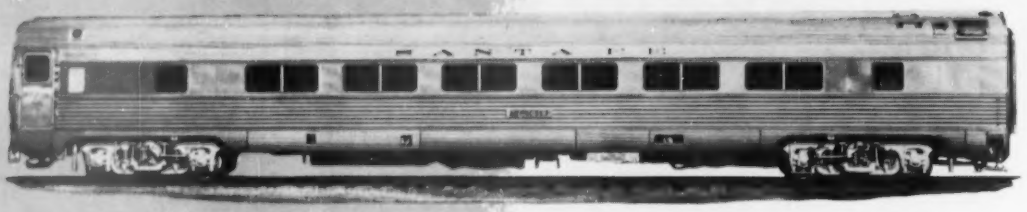
For Luxurious Travel

on the MODERN SANTA FE...

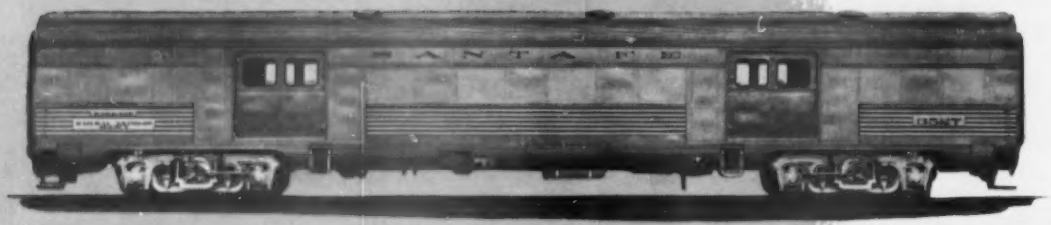


The full length Dome Car with 6-Wheel Outside Swing Hanger Type Trucks.

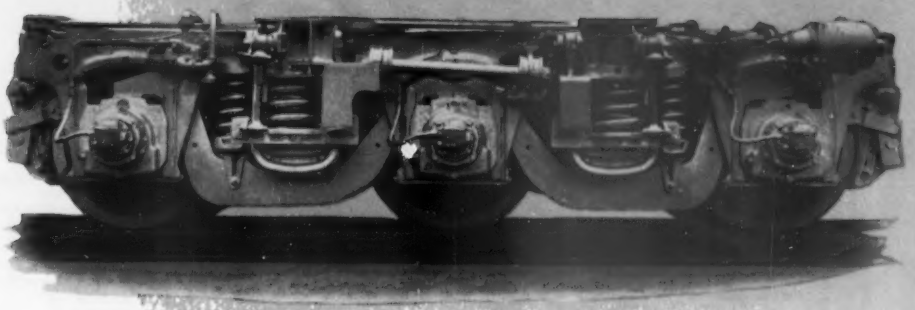
Built by Budd



with 4-Wheel Outside Swing Hanger Type Trucks.

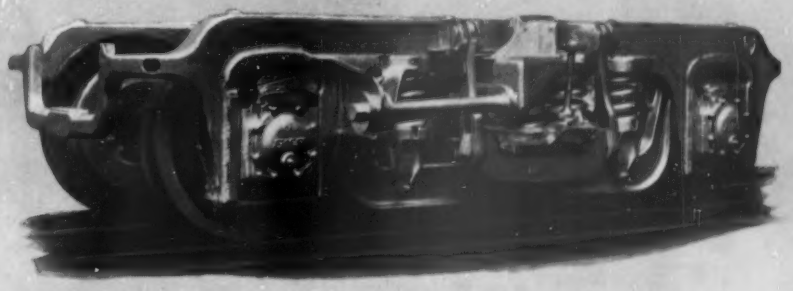


GENERAL



Commonwealth 6-Wheel Outside Swing Hanger Truck with Central Bearing.

Commonwealth Outside Swing Hanger Type Trucks and Central Bearings



Commonwealth 4-Wheel Outside Swing Hanger Truck with Central Bearing.

Dome cars, chair cars and baggage cars, built by The Budd Company for service in the Santa Fe Railway's new *San Francisco Chief*, *El Capitan*, *Chicagoan*, and *Kansas Cityan*, feature newest COMMONWEALTH Trucks with *Outside Swing Hanger Suspension* and *Central Bearings*. Of the most modern design, the dome cars and chair cars provide every passenger convenience, smooth, quiet riding and true travel luxury.

COMMONWEALTH Trucks with Outside Swing Hanger and Spring Suspension assure better riding at all speeds with reduced car body roll. Swing hangers and bolster springs are on the outside of the truck, readily accessible for inspection. The Central Bearing eliminates truck shimmy, increases wheel mileage and requires no lubrication.

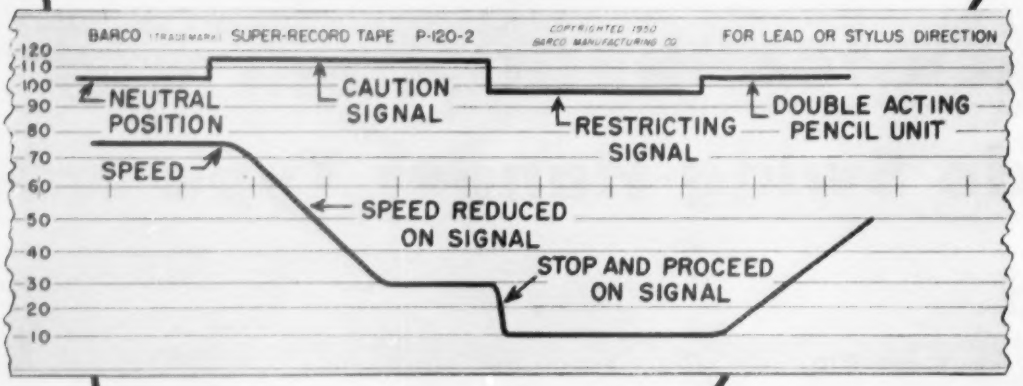
These latest design trucks assure improved travel comfort and substantially reduced upkeep costs. Order them to improve the riding of *your* present cars and specify them for new equipment.

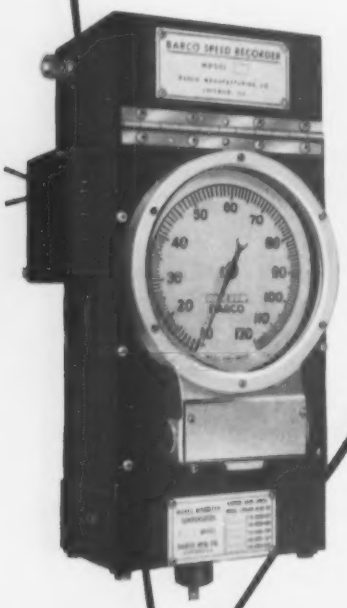
STEEL CASTINGS

GRANITE CITY, ILL. EDDYSTONE, PA.

YOU CAN PROVE

that this engine was operated correctly*





*

RECORDS

worth thousands of dollars to YOU . . .

Now you can eliminate guess-work. Today, it is easy to secure permanent daily records to *prove* that your locomotives are being operated correctly. Such records repay their cost in many ways. They contribute to a general increase in operating efficiency. They encourage safety. They facilitate planning of schedules. They throw light on many facts about your operating problems and the performance of equipment.

If you are interested in using the most advanced, most accurate recording equipment available, see your nearest BARCO representative today. Barco Recorders can be furnished to provide a wide variety of records to meet individual requirements. *Ask for a copy of new Catalog No. 1000.* BARCO MANUFACTURING CO., 501E Hough Street, Barrington, Illinois.

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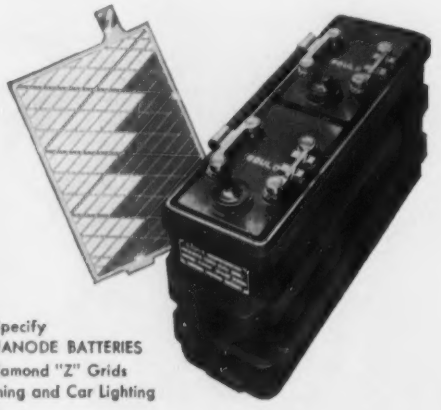
THANKS TO BATTERY POWER!

Tireless action—that's what your air conditioning and lighting batteries have got to give you to keep up with today's increased current requirements. That's what you get when you standardize on new Gould Kathanode Batteries with Diamond "Z" Grids. Extra reserve, extra performance, extra stamina are built into these batteries to provide passenger comfort around the clock. There's no power like battery power—no battery power like *Gould* power.



Specify
GOULD KATHANODE BATTERIES
with New Diamond "Z" Grids
for Air Conditioning and Car Lighting

GOULD *RAILROAD BATTERIES*

GOULD-NATIONAL BATTERIES, INC., TRENTON 7, N. J.

Always Use Gould-National Automobile and Truck Batteries

INDUSTRIAL BROWNHOIST 250 TON

THE WORLD'S LARGEST DIESEL POWERED RAILROAD CRANE

Designed primarily for Railroad Emergency Service, this 250-Ton Crane is the biggest member of the BROWNHOIST Family of Powerful Locomotive Cranes For Heavy-Duty Materials-Handling Work.

Brownhoist Diesel Locomotive Cranes are ruggedly built for continuous, heavy-duty operation and for long, dependable service. They perform equally well as switch engine or crane and with magnet, hook or bucket. Many advanced features of engineering design and construction make BROWNHOIST Cranes easy to operate and inexpensive to maintain. Standard models to meet every capacity requirement. Write for complete information.

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CLAMSHELL BUCKET

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INDUSTRIAL BROWNHOIST CORPORATION, BAY CITY, MICHIGAN • DISTRICT OFFICES: New York City, Philadelphia, Cleveland, San Francisco, Chicago; Canadian Brownhoist Ltd., Montreal, Quebec • AGENCIES: Detroit, Birmingham, Houston, Los Angeles.

158-A

THE *New* LOOK

THINK AND BUY

ROTA-CLINE

WHEN YOU BUY

Presenting the newest custom styling in Dome Car seating to match the superb design of these new type cars. You are no longer restricted to a cut-down, slightly altered conversion of a standard coach seat originally planned for other uses.

This master-crafted, custom design, and other equally attractive, smartly styled seats are available to meet your most exacting specific requirements.

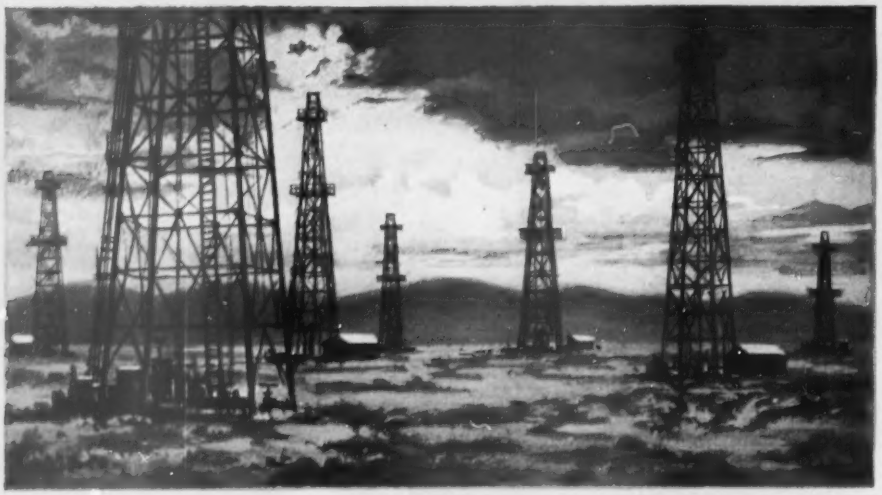
Ask your ROTA-CLINE Representative for confidential seating information.

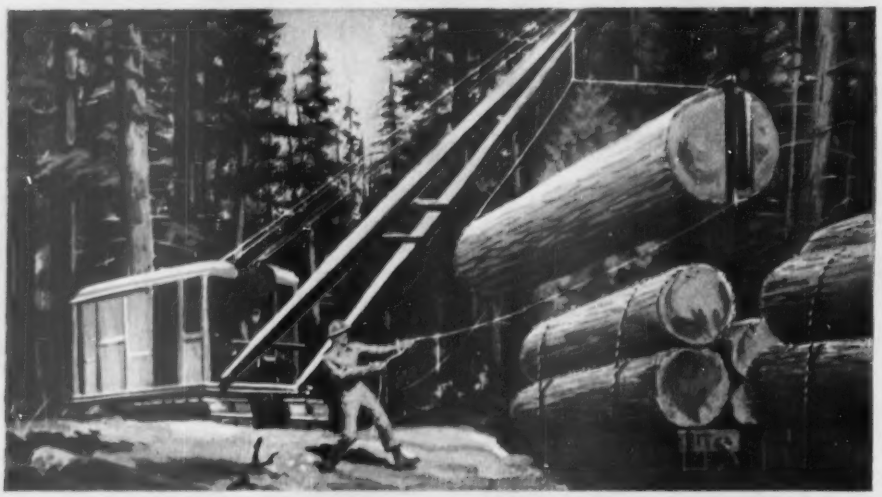
In Chicago...

Coach and Car Equipment Corporation

2860 QUINN STREET

Not merely to sell; but to serve well . . . not only to make good products; but to make them still better . . .

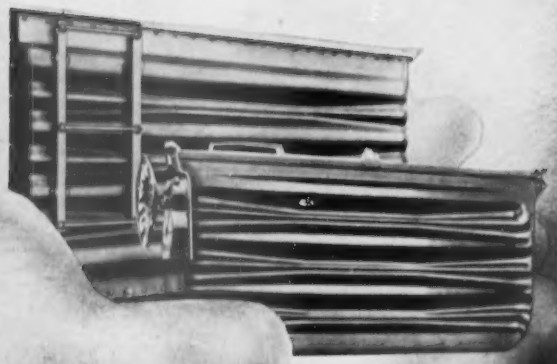




Standard — FREIGHT CAR COMPONENTS —

BRIGHT SPOTS in the *RESEARCHLIGHT* of RAILROAD PROFIT STUDY!

A study of railroad revenue
shows that a *new* car
almost always shows a profit for
the first few years . . .
but that shopping and lading
damage in the latter
years of a car's life
eat up this profit.
The car with a high shopping
frequency turns profits into losses.
That's why *Standard*
Gondola Car Ends—and
all Standard components are
the railroads' best buy—they
are *laboratory-built to*
produce railroad profits—not
just *a quick profit* for today, but
a *lifetime* of "on-the-line"
production from your cars!



Standard *RAILWAY EQUIPMENT MANUFACTURING COMPANY*
GENERAL OFFICE: 4527 Columbia Avenue, Hammond, Indiana
New York • Chicago • St. Paul • San Francisco
Standard *Railway Equipment Manufacturing (Canada) Ltd.*
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TRAVELERS KNOW the Wabash Railroad for its modern service between major Midwestern cities, with service to the West Coast as well.

Passengers to and through the Heart of America

Travel WABASH and Relax!

ONLY DOME TRAIN BETWEEN CHICAGO AND ST. LOUIS—Queen of the Wabash fleet is the Domeliner *Blue Bird*—one of the most beautiful trains on the rails today. Four domes, Pullman observation Parlor lounge, Coffee Shop Club, diner and Cocktail lounge, "Sleepy Hollow" seats. A popular no-extra-fare train. Trains from the Southwest make assured connections with the *Blue Bird* at St. Louis.

CHICAGO-ST. LOUIS—3 trains, led by the gleaming Domeliner *Blue Bird.* The *Banner Blue* and *Midnight* have also earned a fine reputation with travelers.

ST. LOUIS-KANSAS CITY—The luxurious Domeliner *City of Kansas City* features an exciting dome coach. In addition, the Streamliner *City of St. Louis* and the *Midnight Limited* offer comfort, speed and courteous service.

ST. LOUIS-WEST COAST—Streamliner *City of St. Louis* leaves St. Louis every afternoon, making a direct connection with the *Wabash Cannon Ball* from Detroit. Service to Kansas City, Denver, Los Angeles, San Francisco, Portland, and Seattle. Through Pullmans and luxury coaches.

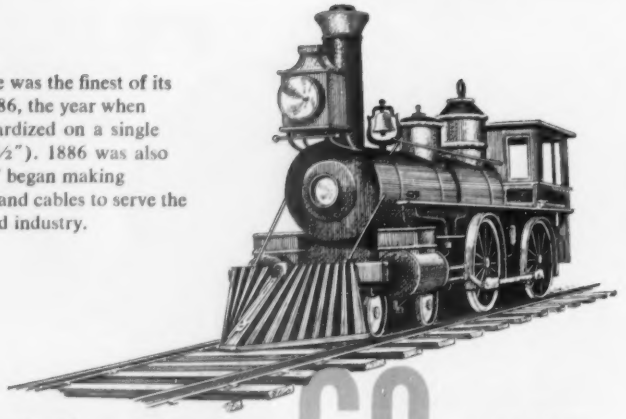
DETROIT-ST. LOUIS—By day, the modern *Wabash Cannon Ball* offers the fastest, most direct rail route to St. Louis. Convenient connections are made at St. Louis with trains to Texas, Oklahoma, Iowa, and Arkansas. For overnight travel from Detroit, there's the popular *Detroit Limited* and *St. Louis Limited,* with service to and from Toledo as well.

ST. LOUIS-OMAHA and ST. LOUIS-DES MOINES—Convenient overnight service with Pullman accommodations.

"ROUTE OF THE *Domeliners*"

T. M. HAYES, Passenger Traffic Manager
St. Louis 1, Missouri

WABASH RAILROAD



This locomotive was the finest of its type back in 1886, the year when railroads standardized on a single gauge (4 ft., 8½"). 1886 was also the year "U. S." began making electrical wires and cables to serve the growing railroad industry.

In step with America's Railroads for 68 years

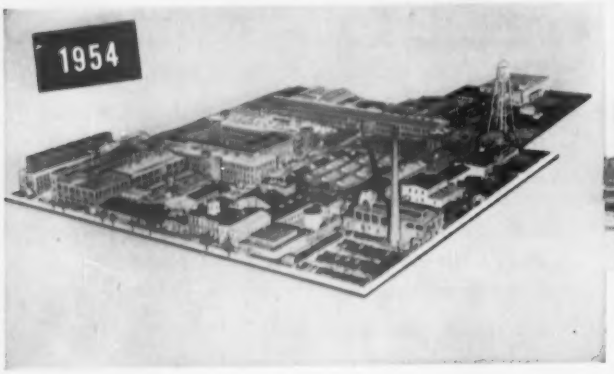
U. S. Electrical Wires and Cables

Year by year, America's railroads become more and more dieselized and electrified. That steps up the demand for electrical wires and cables. But it also means that manufacturers have to turn out wires and cables of tougher specifications, greater durability, wider versatility. The tremendously complex centralized traffic control systems and other "push-button" devices need the finest wires and cables obtainable.

United States Rubber Company is right in the middle of this tremendous railroad electrification growth. For 68 years "U. S." has been supplying railroads with the wires and cables required—as well as *anticipating* future demands. "U. S." has gone along side by side with the railroads, as they grow into an ever stronger national transportation system—a system unmatched in economy, efficiency and safety.

"U. S." is the only wire and cable manufacturer growing its own natural rubber, making its own synthetic and plastic compounds. Through this unequaled *control of manufacture*, "U. S." can always guarantee *superior insulation* in every type of wire and cable it produces.

Above is the United States Rubber Company wire and cable factory in 1886. Below (left) as it looks today.



Just as this up-to-the-minute Diesel typifies the advancement in locomotion, so also "U. S." electrical wires and cables typify leadership in their field, as they have for 68 years.

US RUBBER

UNITED STATES RUBBER COMPANY

ELECTRICAL WIRE AND CABLE DEPARTMENT • ROCKEFELLER CENTER, NEW YORK 20, N. Y.

Current Publications

PERIODICAL ARTICLES

THE STORY OF SPEED, by Donald M. Steffee. Trains, May 1954, pp. 22-30. Kalmbach Publishing Company, 1027 N. 7th St., Milwaukee 3. Single copies, 50¢.

Mr. Steffee reviews the history and causes of acceleration in train schedules, and tabulates the fastest scheduled start-to-stop runs on American railroads in 1953. There is a table showing aggregate mileage contributed by the three major types of motive power at speed ranges varying from 60 to 80 mph or over.

•

TALES OF THE CENTURY, by Harry Lee Stuart. Trains, May 1954, pp. 16-20. Kalmbach Publishing Company, 1027 N. 7th st., Milwaukee 3. Single copies, 50¢.

A man of travel experience tells of his feelings about the "Twentieth Century," and some of the tales concerning it that have come to him either as fact or fiction.

ANNUALS

INTERNATIONAL RAILWAY STATISTICS, YEAR 1952. 159 pages. International Union of Railways, General Secretariat, 10 Rue de Prony, Paris XVII, France.

•

ANNUAL BULLETIN OF TRANSPORT STATISTICS, 1952. 110 pages. Economic Commission for Europe, Transport Division. United Nations Publication. Available from International Documents Service, Columbia University Press, 2960 Broadway, New York 27. $1.25.

•

BUS FACTS: A SUMMARY OF FACTS AND FIGURES ON THE MOTOR BUS INDUSTRY. 22nd edition, 1953. 68 pages. National Association of Motor Bus Operators, 839 17th st., N.W., Washington 6, D.C. Free.

•

CEMENT AND CONCRETE REFERENCE BOOK, 1954. 112 pages, illustrations, tables. Portland Cement Association, 33 West Grand ave., Chicago 10.

BOOKS

MANUAL OF EXCELLENT MANAGEMENTS. 1954 edition. 96 pages. American Institute of Management, 125 E. 38th st., New York 16. $20 to non-members.

This manual, and the 348 industrial organizations in the U.S. and Canada listed in it, are the result of a 1953 study of some 4,000 businesses according to the institute's comparative management audit methods. Purpose of the manual is to enable everyone concerned with management appraisal and improvement to compare management records of various companies, industries and areas, so a more accurate judgment of a company's performance in management can be made, relative to listed companies. Railroads included are the Santa Fe, Atlantic Coast Line, Burlington, Illinois Central, Norfolk & Western, Southern Pacific and Union Pacific.

•

AN INTRODUCTION TO RAILWAY ENGINEERING, by Ronald A. Inglis. 200 pages, drawings. Chapman & Hall, Ltd., 37 Essex st., London, W.C.2. 21 shillings.

A short textbook of theory and practice of railway surveying, construction and signaling. It deals somewhat extensively with design and construction of track and its substructure.

•

PIONEER RAILROADS, by Hank Wieand Bowman. 144 pages, illustrations. Fawcett Publications, Fawcett bldg., Greenwich, Conn. 75¢. Hard cover deluxe edition, Arco Publishing Company, 480 Lexington ave., New York 17. $2.

This is the story of the early days of railroading, the wood burning era, the period of "snakehead" rails and shaky wooden trestles. It covers the period up to the meeting of the rails and the driving of the golden spike in 1869. It is well illustrated and contains many photographs not usually seen in railroad histories.

•

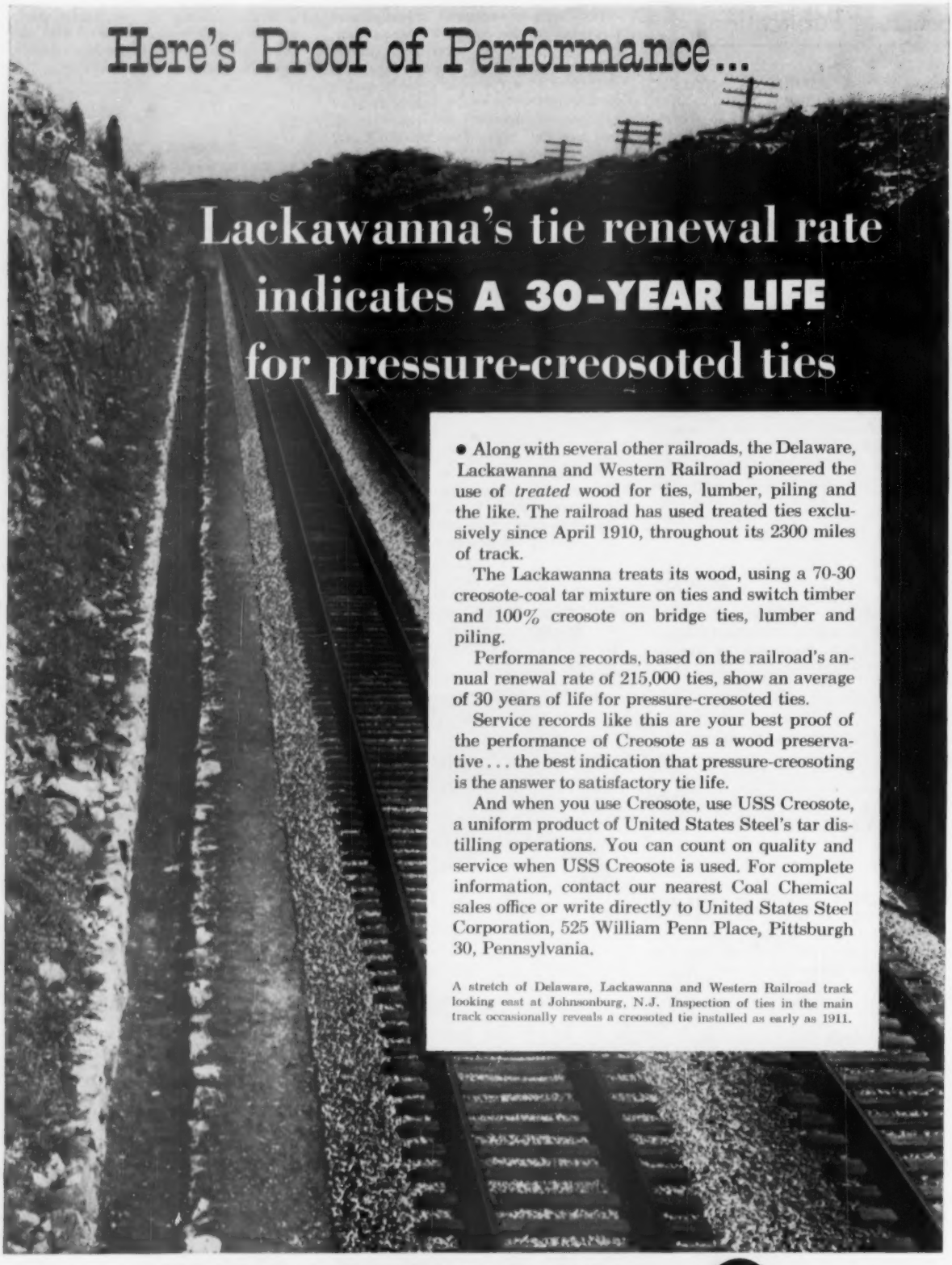
THE CROOKEDEST RAILROAD IN THE WORLD, by Theodore G. Wurm and Alvin C. Graves. 121 pages, illustrations, maps, drawings. Academy Library Guild, Fresno, Cal. $3.75.

This is the story of the famous old Mt. Tamalpais & Muir Woods Railway, known as the "crookedest railroad in the world"—from the violent right-of-way fights at the start of construction in Mill Valley to the mountain railroad's spectacular death in the 1929 Tamalpais forest fire. The quaint Shay geared locomotives and the unique gravity cars that coasted down the mountainside are illustrated; there are equipment drawings and a locomotive roster.

PAMPHLETS

RAILROAD SYSTEM IN CAPTIVE EUROPE, by Adam Rudzki. 23 pages. Mid-European Studies Center, National Committee for a Free Europe, Inc., 4 W. 57th st., New York 19. 10¢.

Outlines postwar railway developments in Poland, Czechoslovakia, Hungary, Romania, and Bulgaria.



• Along with several other railroads, the Delaware, Lackawanna and Western Railroad pioneered the use of *treated* wood for ties, lumber, piling and the like. The railroad has used treated ties exclusively since April 1910, throughout its 2300 miles of track.

The Lackawanna treats its wood, using a 70-30 creosote-coal tar mixture on ties and switch timber and 100% creosote on bridge ties, lumber and piling.

Performance records, based on the railroad's annual renewal rate of 215,000 ties, show an average of 30 years of life for pressure-creosoted ties.

Service records like this are your best proof of the performance of Creosote as a wood preservative . . . the best indication that pressure-creosoting is the answer to satisfactory tie life.

And when you use Creosote, use USS Creosote, a uniform product of United States Steel's tar distilling operations. You can count on quality and service when USS Creosote is used. For complete information, contact our nearest Coal Chemical sales office or write directly to United States Steel Corporation, 525 William Penn Place, Pittsburgh 30, Pennsylvania.

A stretch of Delaware, Lackawanna and Western Railroad track looking east at Johnsonburg, N.J. Inspection of ties in the main track occasionally reveals a creosoted tie installed as early as 1911.

USS CREOSOTE USS

4-1082

UNITED STATES STEEL

Coming soon...

VISTA DOMES for the faster NORTH COAST LIMITED!

Late this summer a fleet of new Vista-Dome cars will begin service on Northern Pacific's crack train. Between Chicago and the North Pacific Coast, passengers aboard the faster North Coast Limited will see some 2000 magnificent miles of Northwest mountains, plains, forests and rivers – as they could never see them before!

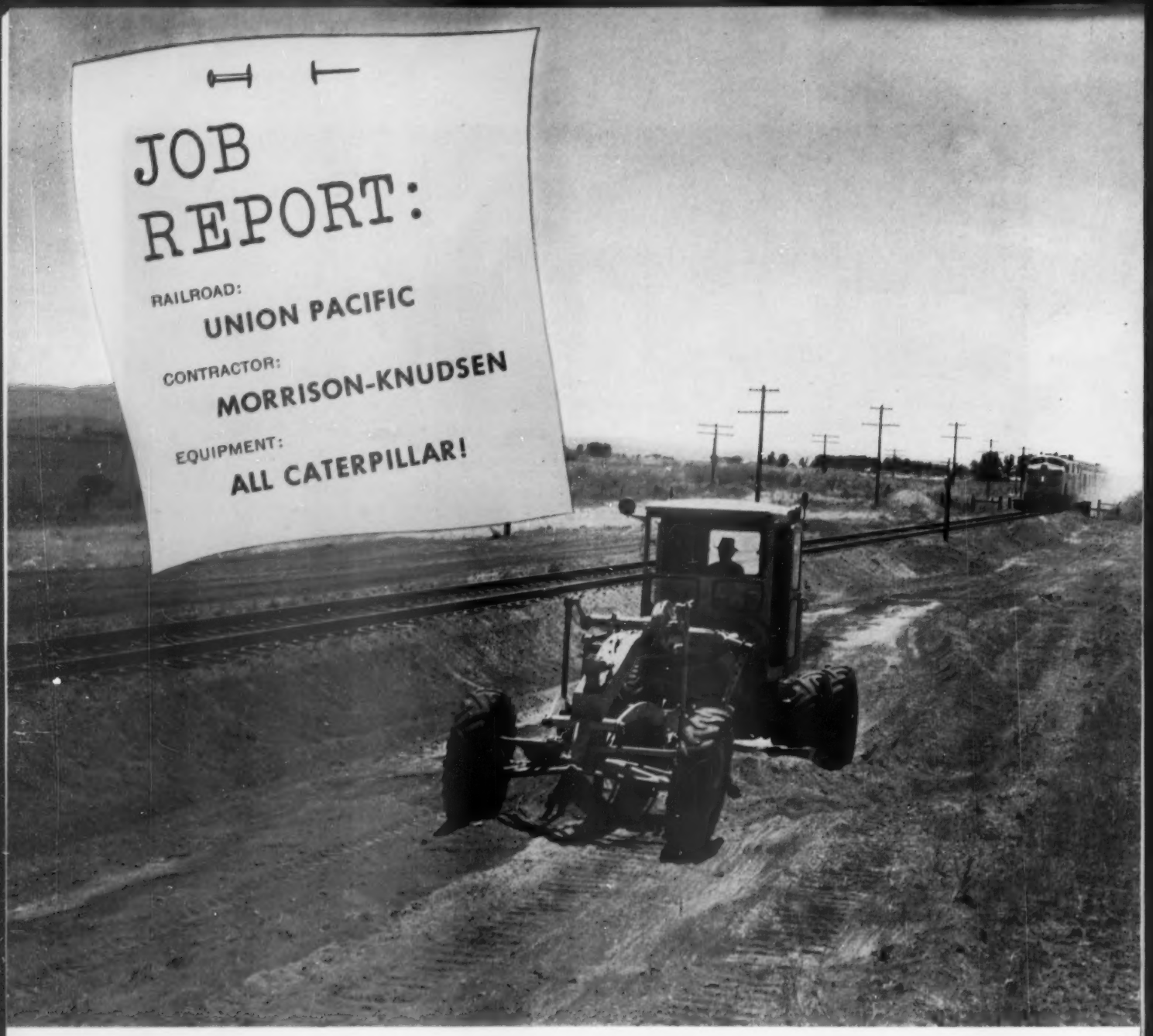
There'll be plenty of room for sightseers, too – four Vista-Domes on each North Coast Limited when all cars are in service. Two Coach Domes and two Pullman Domes – the first Vista-Dome sleepers in America – will seat 24 passengers each in their Dome sections.

Handsome Raymond Loewy-designed diners and observation lounge cars will add extra luxury and down-to-earth comfort. You'll like the faster North Coast Limited . . . with Vista-Domes!

G. W. RODINE, *Passenger Traffic Manager*
St. Paul, Minnesota

NORTHERN PACIFIC RAILWAY

Main Street of the Northwest



SIX MILES south of Idaho Falls, Idaho, Morrison-Knudsen had a big job for the Union Pacific. Rails had to be raised seven inches on new ballast, shoulders and banks widened and drainage constructed.

Every piece of equipment on this particular job was Caterpillar. This was the lineup: two D8s and a D6 (all equipped with Caterpillar Bulldozers), a No. 12 Motor Grader, two DW20s with matching scrapers and a D7 for push loading.

There are hard-headed business reasons why *Cat** machines compose "a major portion of Morrison-Knudsen's multi-million-dollar fleet of construction equipment."

Look, for instance, at the work produced by the big, dependable No. 12 Motor Grader. Besides being essential on new construction, it can be used for keeping right of way clean, and reshaping slopes and drainage ditches. When winter comes the No. 12 becomes a valuable snow-removal unit.

In addition, this 100-horsepower versatile machine is kind to your operators. Constant-mesh transmissions enable them to shift easily. No large gear housings interfere with their visibility. Anti-coast brakes prevent creeping of adjustments under load and vibrations. In other words, the blade stays where the operator puts it.

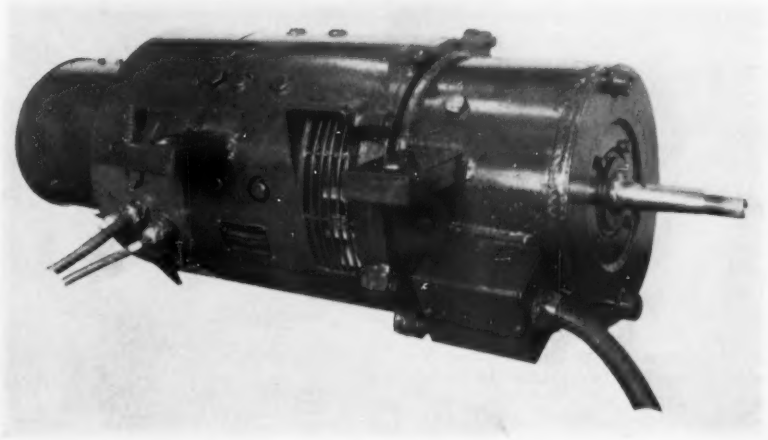
Your Caterpillar Dealer will be happy to show you why the No. 12 will do more work, better, day after day. Have him demonstrate on *your* job. Just name the date.

Caterpillar Tractor Co., Peoria, Illinois, U. S. A.

CATERPILLAR*

*Both Cat and Caterpillar are registered trademarks—®

What's New in Products



New Axle-Drive M-G Set

Simplified control system made possible by enclosed field exciter which eliminates conventional pole changer.

A new line of axle-driven motor-generator equipment for passenger car power supply has been announced by the General Electric Company's Locomotive and Car Equipment Department, Erie, Pa. Designated the CMG-162, this equipment has been designed for use on 32-, 64- or 114-volt d-c power supply systems.

The 140-volt equipment has a regulated output of 24/30 kw. The 40-volt equipment is rated 22/28 kw and the 80-volt equipment is rated at 24/30 kw.

Because of the increased ventilation available at higher speeds, it is possible to furnish a dual output. The first figure represents the output available at low speed and the second at high speed. When the set is plugged in on wayside power, 17 kw regulated output is available.

The equipment consists of a 4-pole d-c generator, a 6-pole exciter and a 4-pole, 3-phase, 60-cycle, 32-hp induction motor, all assembled on a common shaft.

When the car is in motion, the set is driven from an axle through a drive unit and automatic clutch mounted on the shaft extension at the a-c motor end of the set. The a-c motor is used to drive the generator when the set is plugged in on wayside power in passenger car yards and when standing in terminals.

A simplified control system, resulting in a reduction in the number of control panels required, is a feature of the equipment. All d-c control components are consolidated on one panel, and all a-c control components on another. This simplification has been accomplished by the addition of a totally enclosed exciter for furnishing generator field excitation. It is mounted on the generator shaft in place of the armature reversing switch. Constant polarity is maintained on the exciter field.

As the direction of rotation reverses, the exciter output reverses, causing the generator to maintain proper polarity.

The regulator consists of two simple vibrating type relays which control the generator output by regulating the exciter field.

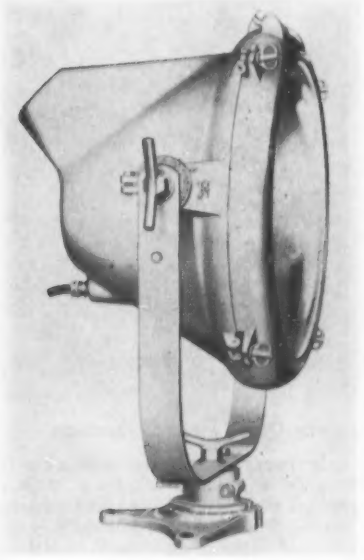
A simplified reverse current relay has also been included. All adjustments can be made with the control panel in position in the car. Individual devices can be tested on a bench, and when the device is replaced on the panel, no further adjustments are required.

With all of the d-c components mounted on one panel, there is more space available in the electrical locker on the car. Also, less locker heating is experienced because the low energy content exciter field is used for regulation.

The set is equipped with sealed bearings designed to run from overhaul to overhaul without attention. The generator armature, fan and a-c motor rotor are built on a full length sleeve to facilitate shaft removal and replacement.

Disconnecting the leads when a set is removed from the car is made easy by the use of a junction box for the a-c leads and terminal posts for the d-c leads. Brush holders are marked in such a manner that it can be readily determined when a change of brushes is required.

The first application of this equipment is currently being made on 100 coaches being built for the Canadian National by the Canadian Car & Foundry Co. •



Twenty-Inch Floodlight

The Pyle-National Company, Chicago, announces the addition of a 20-in. floodlight, Type 20175, to its line of enclosed, weather-tight, dirt-tight floodlights.

The unit is designed to burn 1,000-watt G-40, 1,500-watt G-48, and 1,500-watt PS-52 lamps, which have special burning positions recommended by their manufacturers.

The new Type 20175 floodlight will also take the 750 and 1,000-watt PS-52 lamps and 700 and 1,000-watt mercury vapor lamps.

The floodlight is fully enclosed and constructed throughout of rugged, corrosion-proof materials. Door and glass joints have a tight, soft packing seal which keep moisture and dirt from reflector, lamp and inside of lens thereby preserving the beam efficiency, with a minimum of floodlight maintenance expense.

The full 360-deg vertical and horizontal body adjustments are provided

with a sturdy locking device to avoid accidental movement. A register, which is part of the locking device, provides accurate return of the projector to its original adjustment, if it is necessary to tilt it or turn it for relamping or cleaning.

In addition, there also are angle degree markings to aid in making the original setting meet the specifications of the lighting layout. The unit is supplied with a wide choice of door lenses and mounting bases •

Power-Off Clock Correction

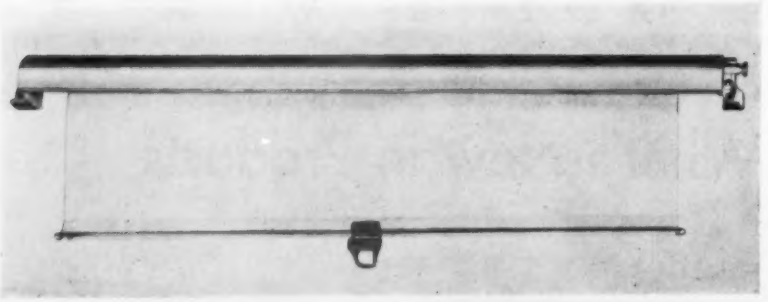
Compensation for prolonged power interruptions due to electrical storms, shutdowns for maintenance and repairs, and other unavoidable occurrences, is provided with a 12-hr self-regulating electronic time system, manufactured by the International Business Machine Corporation, 590 Madison Ave., New York 22.

This new system's extended range of correction is provided twice each day for all indicating clocks that have fallen behind more than one hour, making it possible to correct automatically clocks with time lags of as much as 11 hours, 59 minutes, and 5 seconds. Time lags of 59 minutes or less, or fast errors of up to 55 seconds, are still supervised hourly and corrected in one minute as in other IBM time systems. All units showing correct time remain unaffected by the hourly or the 12-hourly supervisory signals.

Any desired hour may be selected for the 12-hr correction cycle.

This system does not require any special clock and signal wiring, and it can be easily expanded and relocated as may be desired.

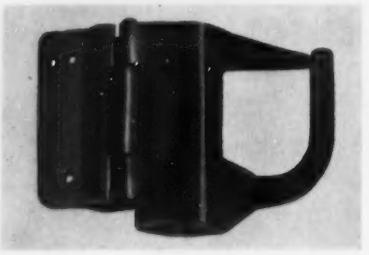
Existing installations of IBM self-regulating electronic or sychronous-wired systems can be expanded to full 12-hr correction •



Vestibule Curtain Release

A new Type B-J vestibule curtain release handle is being offered by the Morton Manufacturing Company, 5125 West Lake st., Chicago 44. The distinctive feature of this new handle is said to be that it automatically releases at the correct tension point.

Handles of this type have been in service for over a year and reports indicate that the positive release feature prevents torn curtains in switching operations •



Closeup of release handle.

Water Resistant Insulation for Piping

Development of a new water resistant insulation has been announced by the Magnesia Insulation Manufacturers Association representing the producers of 85% Magnesia insulation and related products. The new form of 85% Magnesia is claimed to offer a solution to the important problem of insulation damage resulting from severe water exposures.

Exhaustive tests by an independent laboratory, the association reports, indicate that the new material showed only a slight surface roughening following immersion in boiling water for 378 hours with intermittant drying on hot pipes. Following the tests the new material was still in serviceable condition.

The new insulation was developed under the sponsorship of the Technical Committee of MIMA and is the result of several years of research and development in the plants of the member companies—the Philip Carey Manufacturing Company, the Ehret Magnesia Manufacturing Company, the Johns-Manville Sales Corporation, Keasbey & Mattison Co., the Mundet Cork Corporation, and Pabco Products, Inc.

The new material is said to be especially useful for underground pipe lines subject to flooding, process equipment and piping requiring hosing or washing down, and similar high-moisture conditions •

THIS VERSATILE ARMY VEHICLE, capable of traveling either on a railroad or a highway, may be used as a 36-passenger bus, an enclosed cargo carrier, an 18-litter ambulance, or a combination bus and ambulance. Road-rail conversion equipment was developed by the Evans Products Company, Plymouth, Mich. In its present form, the vehicle appears to be a refinement of one developed in Korea (*Railway Age*, July 30, 1951, page 25).

NOW! BOARD THE CENTURY AFTER BUSINESS, EAST OR WEST

Smoother Track cuts Chicago-New York running times with famous Water Level Route comfort unchanged

BREAKING THE "TIME BARRIER"! The time difference between New York and Chicago works *for* you traveling west, but *against* you going east. Now, however, smoother faster track lets *The Century* largely offset that time difference. You leave *after* business at *both* ends on the new 15½ hour eastbound and 15¾ hour westbound schedules. And with more improvements, the running time will soon be down to 15 hours eastbound, with no loss of famous *Water Level Route* comfort.

COMMODORE VANDERBILT ALSO ON NEW FASTER SCHEDULE. Below are the new departure and arrival times for this all-Pullman streamliner as well as for *The 20th Century Limited.*

LEAVE AFTER BUSINESS

6 PM westbound, 5 PM eastbound, just time for refreshments in the lounge before your "dinner of The Century."

EXTRAS OF *THE CENTURY*

Telephone service all the way. Train secretary. Barber shop. Valet. Room service at mealtimes or between times.

MADE FOR SLUMBER

Central's famous Water Level Route—only low-level route between Midwest and East is nowsmoother-ridingthanever.

AS BUSINESS STARTS

Step off in Grand Central Terminal, New York, 9:30 AM, or LaSalle Street Station, Chicago, 8:45 AM.

20TH CENTURY LIMITED

Sunday through Friday. Does Not Run Saturday

Read Down		Read Up
LV. 6:00 PM	NEW YORK	AR. 9:30 AM
AR. 8:45 AM	CHICAGO	LV. 5:00 PM

COMMODORE VANDERBILT

Sunday through Friday

Read Down		Read Up
LV. 5:30 PM	NEW YORK	AR. 9:00 AM
AR. 8:30 AM	CHICAGO	LV. 4:30 PM

Saturdays Only

LV. 6:00 PM	NEW YORK	AR. 9:30 AM
AR. 8:45 AM	CHICAGO	LV. 5:00 PM

All times shown are Daylight Saving

NEW YORK CENTRAL SYSTEM

NEW YORK CENTRAL

THE WATER LEVEL ROUTE—YOU CAN SLEEP

Construction features, dimensional data, manufacturing techniques and the electrical features and physical properties of Okonite insulated wires and cables for railroad use are all included in Okonite's new railroad catalog, Bulletin RA-1078. Additional information can be obtained from any of our 24 Sales Offices.

Here are the types of cables and accessories covered in Bulletin RA-1078:

- **Signal Cable**
- **Diesel Electric Locomotive Wire**
- **Car Wire**
- **Hazacord Portable Cords and Cables**
- **Power Cable**
- **Splicing Materials**

Write, today, for your copy to The Okonite Company, Passaic, N. J.

OKONITE SINCE 1878 ***insulated cables***

2371

What Price Passengers?

The basic difficulty in the carriage of passengers by rail today is that it costs too much—for the railroads. The overall costs incurred by the railroads are out of line with what they can hope to recover from the public, because that public measures the cost of carriage by its own fuzzy and unrealistic notion of the cost of travel by private auto. However wrong that notion, it is practically imperishable.

Why does it cost the railroads so much to furnish passenger transportation?

(1) The railroads are still providing lots of services for which they are unfitted by nature and which are, therefore, costly to provide. By them, they win no public esteem, but on the contrary, only contempt and a reputation for obsolescence.

(2) The cost of railroad passenger carrying equipment is excessive, when compared with the automobile and the bus. The weight per passenger seat of a modern railway coach (including its share of engine weight) is 1½ tons, compared with ½ ton for a private automobile and ¼ ton for a modern intercity bus. The cost comparison is even more unfavorable. A modern coach costs at least $2,000 a seat. With its share of the locomotive, the cost comes up to $2,600—four and a third times the cost per automobile seat and more than ten times the cost per seat of a modern air-conditioned bus.

Surely the gap is not to be found in "profits" of the passenger car builders. People don't consider abandoning a business which provides substantial profits. The real key is that the railroads are trying to fight mass-produced and mass purchased automobiles and buses—even air transports—with custom-built equipment purchased generally in small lots, and in erratic "peaks and valleys," to individual road specifications. The buyers demand weight and strength factors completely out of proportion with other forms of transportation.

The question: Are these peculiarities necessary to the safe and proper conduct of passenger transportation on rails?

(3) Because, unlike their competitors, the railroads use a large number of employees to maintain and operate "way," to stay in business they must enjoy a very favorable ratio of employees on trains to passengers carried. No current studies on this topic come to mind. But general observation would indicate that, taking all trains into consideration, the railroads enjoy little or no advantage in this regard, especially when the still persisting 150-mile basic "day" for train service, and 100-mile "day" for engine service, personnel are compared with transcontinental runs for air line crews, and when the big one-man bus is taken into account.

The wages of transportation employees on the passenger side are disproportionately high, in relation to hours of useful work done, and become more so with each national increase. Back in 1916, out of every dollar received by the railroads as revenue from the operation of passenger trains, 9.8 cents was paid in wages to engine and train service employees engaged in operating the trains. In 1952, these same employees took 17.1 cents per dollar of passenger revenue, or almost double the proportion. (*Railroad Wages and Labor Relations*: 1900-1952, by H. E. Jones, chairman, Bureau of Information of Eastern Railways.)

Costs vs. Fares

The tradition of a uniform mileage fare structure necessitates the adjustment of fares to cover, to the maximum extent possible, average, not actual, costs. A recent costing study by the British Railways showed that the cost of carrying a passenger a mile on a fast, long-distance main-line express is as low as one-third of a penny, while a slow journey on a lightly patronized branch-line train may cost up to 25 pence.

Since railroad fares do not reflect actual costs for any given haul, competitors are given an umbrella under which they can filch away traffic on the very hauls where the railroads can show the lowest costs and the greatest profits. For example: The kind of routes on which the air lines offer coach fares are those on which the railroads' volume is above average. The air lines make no effort to offer low fares on the less well-patronized feeder routes or to intermediate stations.

It is likely that, without any reduction in their average costs, the railroads could, if they departed from uniform distance rates, quote fares for individual hauls which would give them a substantial edge on their competitors, yet produce sufficient volume to meet the lower unit costs on these routes.

How to reduce the basic cost of providing passenger train service is the knottiest problem. Promising a more immediate yield probably are fare experiments which will reflect more accurately actual unit costs and relative volume.

ATTRACTIVE, PRACTICAL AND EASY TO CLEAN materials are featured in this lower-level section of a full dome car. Table tops are hard plastic and upholstery is a vinyl coated fabric embossed to resemble cloth.

How Colors and Materials Help

. . . MAKE CARS MODERN AND APPEALING

New products and decorating techniques make car interiors more attractive, easier to clean and maintain, and less costly to manufacture

How can I make my car interiors more attractive to passengers—yet hold cleaning and maintenance costs to a minimum?" That question is of particular interest to passenger and mechanical officers of railroads devoting intensive efforts to capturing travel dollars.

It is well known and widely accepted that the appearance of passenger cars—inside and out—does influence traffic volume. The three principal passenger car builders—Budd, Pullman-Standard, and American Car & Foundry—all maintain architectural and decorating staffs. Although the tastes and preferences of different railroads vary, experience has taught that there are some fundamental elements of good decoration. The following observations have been gathered from the combined experiences of these manufacturers.

That public acceptance of equipment, whether new or old, is strongly influenced by decorative treatment was rather effectively demonstrated this spring when one railroad, whose sleeping car and coach equipment is very conventional in decoration and color treatment, repainted the interiors of three older sleepers using lighter colors and modern color arrangements. In surveying public opinion, that road was rather startled to find many passengers not only liked the cars, but thought they were brand new!

What Colors Are Best?

There is no such thing as a "best" color or combination of colors. Individual tastes and other controlling circumstances vary widely. But there are some guideposts to help indicate what combinations and arrangements are apt to be more effective:

- Actual selection of colors should be handled by someone with a professional acquaintance in their use and blending;
- In general, the colors selected should be related to the territory served—cool colors in warmer climates, and warm colors in colder climes;
- The class of accommodation involved must be considered—thus conservative combinations go best in sleeper and

SIMPLE, ATTRACTIVE, hard wearing, yet easy to clean, this RDC car has Cordoglass vinyl plastic window shades and asphalt-vinyl floor tile.

parlor cars, with brighter colors more popular in coaches;

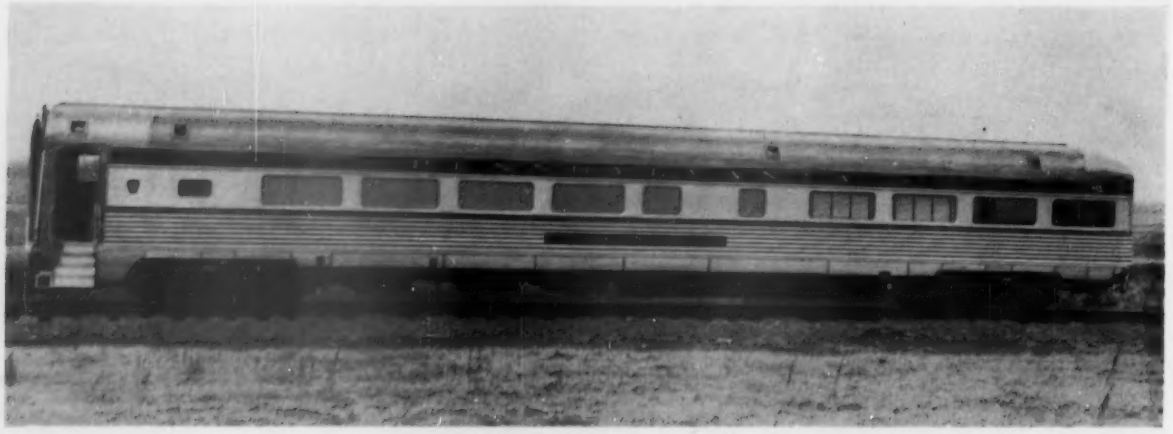
- It is best to "follow nature" by having lighter colors up high, and darker colors down low in the areas of greatest wear, except when unusual effects are desired;
- Color schemes and decorations of coaches, aisles and other "open" cars should be planned to break their long tunnel effect by reducing emphasis on the length of the car and increasing emphasis on width; and
- In roomettes, bedrooms, and other small areas, colors and decorations should be arranged to create the illusion of greater size.

Modern decorations in the home, automobiles, offices, factories and other public places have strongly influenced public taste, and accustomed most everyone to a more liberal use of color. "Boarding house yellow," "smoke grey," "Pullman green," and dark brown—colors long used by railroads because of their serviceability and ease of maintenance—today are considered drab and gloomy, unless used in combination with lighter, clearer colors and bright accents.

New Materials

Modern colors and decorations are fine—but they have a tendency to give the cleaning and maintenance people "the shivers" because of the time, labor and materials involved in keeping them looking fresh and clean. Public opinion polls show that the public is aware of cleanliness, and has come to expect good housekeeping on trains. Lighter colors—particularly the

AN ILLUSION OF SIZE is important in small spaces, and can be created through the careful selection of colors, color combinations, and color intensity.



COLOR makes train exteriors eye-catching. A stainless steel car has a more distinctive look when color is added.

CAR IS MADE TO SEEM WIDER by breaking the lines of the ceiling fixtures, and placing a long horizontal picture on the bulkhead.

THE CLASS OF ACCOMMODATION involved has to be considered in planning interior decorations. Here extensive use is made of fabrics.

pastels which are so popular today—have a distressing way of getting dirty and grey rather quickly.

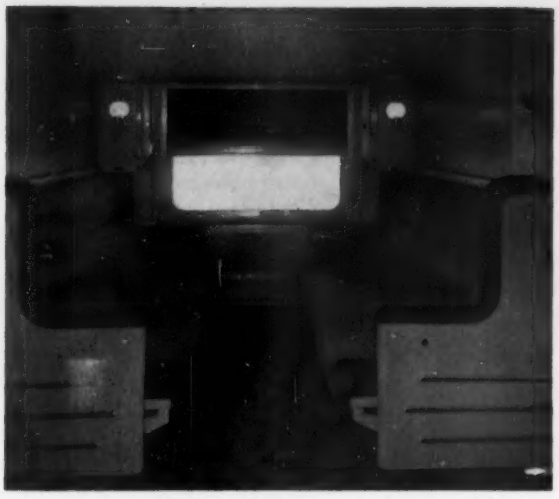
But new materials and methods are fast changing this picture. Within the past year new hard-surfaced malamine plastic panels have been developed which are suitable for use on car walls and ceilings. The softer vinyl plastics have been successfully used for wall and ceiling coverings. Both forms are available in an infinite variety of colors and designs and have the advantage of being very washable, resistant to moderate abrasion and to stain and discoloration. These materials open new horizons in the use of lighter, more fragile colors. Their use can also greatly simplify and expedite maintenance because they wash clean with soap and water, and don't grow dull after repeated washings.

Cleaning and maintaining photographs, drawings and all kinds of decorative artwork—often a troublesome and expensive problem—can now be greatly eased and facilitated by laminating them in plastic or by using Kalistron (painting on the back side of vinyl plastic). In this way they keep their freshness, yet can be readily washed with soap and water. Etchings, prints, decorative fabrics—anything that isn't harmed by the moderate heat used in the process—can be treated in this manner.

There are many new forms of decoration which are very effective, yet are simple and easy to maintain. These include plasticized silk screen art work, etched glass, decorative plastics laminated in glass, Gesso reliefs, *repoussé* sculptures, Galvano decorations, carved and lacquered linoleum.

Draperies are a most effective decorative material. A few relatively inexpensive drapes can make an otherwise "flat" interior pleasant. Fully as important as their decorative effect is the value of draperies for absorbing sound. They are very effective in absorbing the background noise of the train. Despite all of this, draperies are an annoyance to maintenance people because of the way they spot and grow dull, necessitating frequent cleaning and replacement. New materials have changed this condition, however. It is now possible to have

G-BAR-N "RANCH CAR" demonstrates what can be done with good design and decoration. Distinctive in appearance, parts are designed for easy maintenance.



MALAMINE PLASTIC PANELS are used for the partitions and wainscoting in this new section sleeper.

COMPLETELY WASHABLE, this Kalistron silk screen print is both practical and very decorative.

drapery fabrics treated with silicon compounds which will give them greater resistance to stain and ordinary dirt. Treated fabrics need not be cleaned so often, and usually have a longer service life.

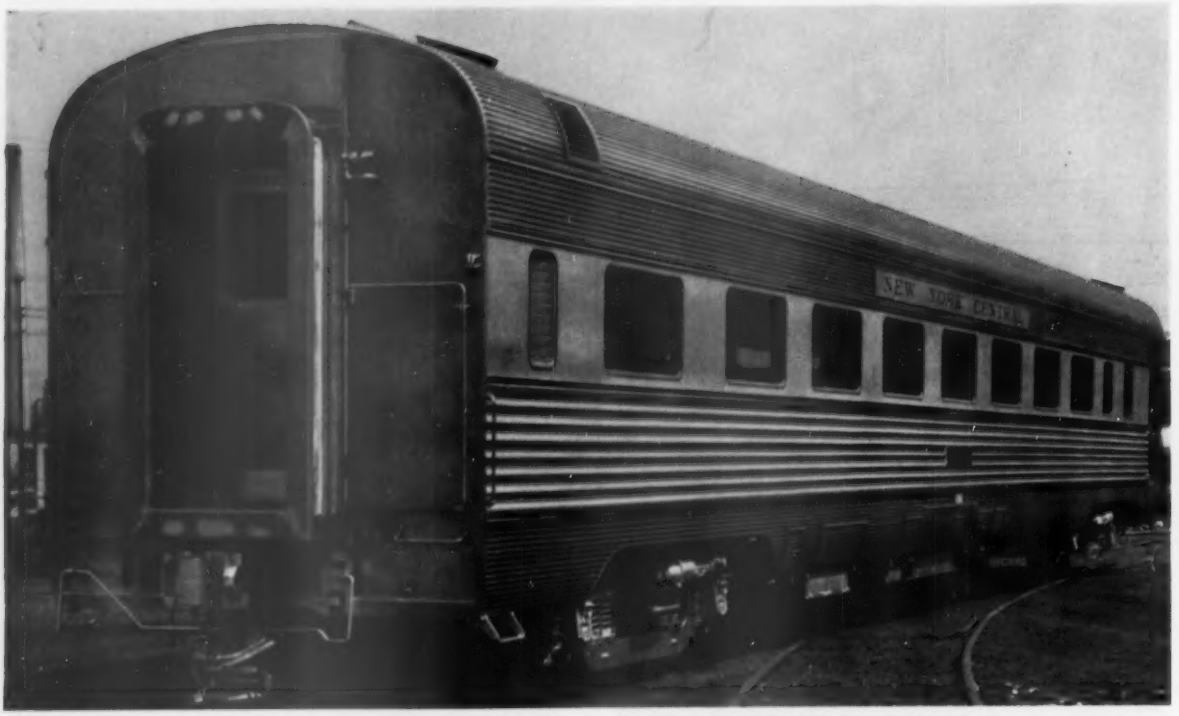
Window shades can be utilized effectively in creating more pleasant car interiors. The old bugaboos—stain and accumulated soot—are being licked by the use of silicon treated fabrics and plastic material fortified with glass threads. This new material is really a vinyl plastic sandwich with a Fiberglas center. It has an exceptionally long life, does not stain or crack, and is readily washable. In areas where summer heat is a problem, car interiors can be kept cooler by having the outside of window shades finished with aluminum.

New Upholstery Materials

The use of colored upholstery—particularly the lighter and brighter colors—can do much to create a more pleasant and effective car interior. A wealth of fabrics are now available, making possible a large number of color and texture variations without sacrificing serviceability.

The newest development in the upholstery field is embossed plastic. Heavy weight vinyl plastics are permanently embossed to have both the feel and appearance of nubby and open-weave upholstery fabrics. Their big advantage lies in their excellent serviceability and ease of cleaning. Soap, water and a brush are all that's needed to do a complete and thorough cleaning job. Some of these new plastics avoid the public's usual objections to their use: They are cool to sit in and do not get "sticky," even in hot weather.

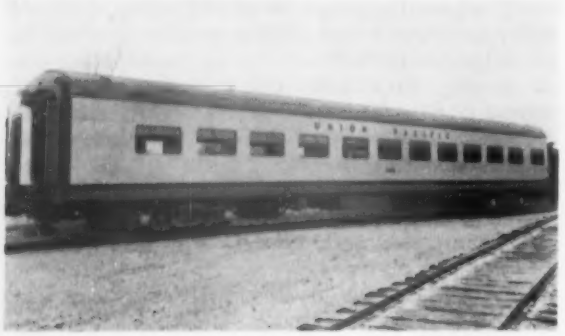
New vistas for effective decoration of short-haul and suburban coaches are opened by these new materials. In these cars, problems of wear, stain and dirt are the greatest. Plastic upholstery will probably also prove useful and practical in lounge, dining and other meal cars where there are similar problems of staining and cleaning.



An early stainless-steel coach, built when lightweight cars seldom exceeded 110,000 lb, ready to run.

Trends in Passenger Car Design

Dining car, built in 1939, weighs about 113,000 lb.



Built in 1954, aluminum-alloy car weighs 134,680 lb.

- More comfort
- More luxury
- Less chaos in types
- More weight
- What next?

Nearly 20 years have elapsed since the advent of low-alloy high-strength steel, aluminum alloys and stainless steel as materials of construction for the building of passenger cars. These materials introduced the era of lightweight design, the effect of which was reductions in weights upward of one-third from those prevailing in cars built of carbon steel. The reduction in shell weights effected by the use of the new materials brought center-plate loads within the capacity of four-wheel trucks. A substantial part of the weight reduction was accounted for by the elimination of the six-wheel trucks and by using alloy steel in the truck castings.

The changes in weights drew attention to the need for truck suspensions adapted to the lightweight car bodies, and the four-wheel passenger-car truck came in for intensive study. To improve longitudinal stability draft gears and couplers also came in for attention. The interest in the comfort of the passenger did not end with attention to the riding qualities of the cars. The active develop-

ment of air conditioning began at almost the same time as the use of the new structural materials, and the improvements in air-conditioning equipment and controls which have since been made have been accompanied by changes and refinements in heating and heating controls.

The first lightweight trains were articulated and somewhat reduced in cross-section to lessen weight and head-end air resistance. Interest in both of these features, however, soon passed. Full widths and heights were soon restored and articulation has been perpetuated in a few cases only for dining-room-kitchen combinations.

During the period from 1935 to 1940 all three of the new structural materials were utilized in the construction of passenger cars. Several of the coach designs weighed less than 100,000 lb, but these extremely light cars were less than 80 ft long. Four coach designs of this period, all of cars over 81 ft long, each weighed over 100,000 lb and averaged 106,000 lb. Dining cars designed during this period averaged 118,000 lb, with a range from 110,000 to 135,000. These cars were all over 80 ft long. Sleeping cars built during this period varied considerably, depending upon the arrangement of accommodations. A fair average is 125,000 lb.

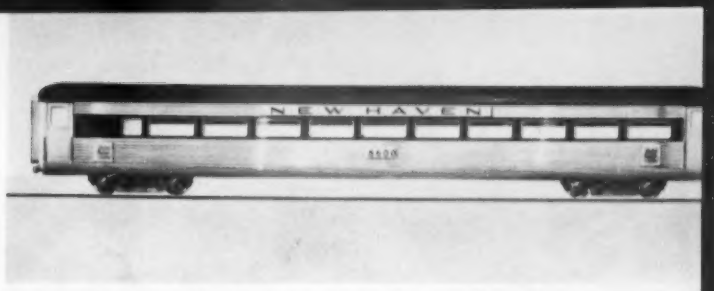
Since the end of World War II attention has been given to weight reductions of many parts and specialties, including foundation brake rigging, heating and cooling equipment, electrical equipment, air-brake parts, car seats, insulation and other details. Few spectacular weight reductions in these parts are possible, but refinements in design and, in some cases, the use of stronger or lighter material have had some effect. Notable is the reduction in weight of electrical equipment made possible by increases in voltage which have been made on a few railroads and will probably be adopted by others.

While these efforts have been under way, however, the designer has been under pressure to include more equipment on the car to increase the comfort of the passenger or to add to the luxury of the accommodations provided for him. After attempts at air-conditioning passenger cars with ice had proved unsatisfactory, electromechanical systems rapidly gained headway. Capacity of the early installations was 5 tons. Now coaches and diners are seldom equipped with less than 7 or 8 tons. This has greatly increased the demand for electric power.

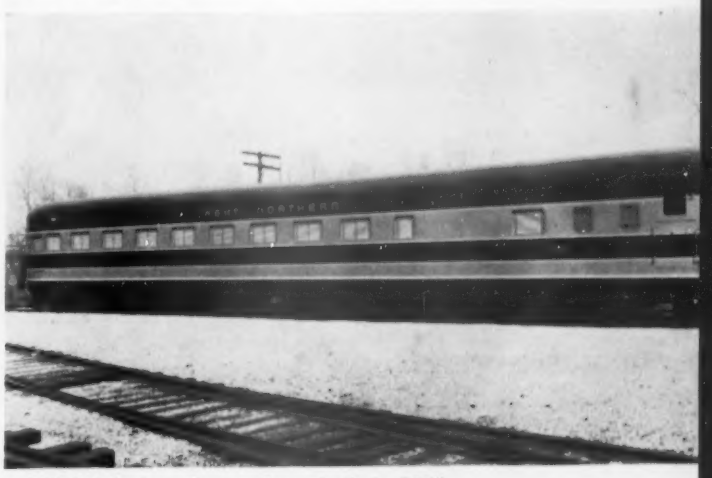
When lighting was the only load, electrical systems of 4- to 10-kw capacity were adequate. Capacities now required are 25 and 30 kw. Some dining cars now require power for kitchen refrigeration and a few also for cooking, in addition to lighting and air conditioning. And now full-length dome cars, with an air-conditioning load of 20 tons, are equipped with a complete diesel-electric power plant of 40-kw capacity to carry the electrical load.

So it is inevitable that cars built since 1945 are considerably heavier than those built during the earlier days of lightweight construction. Coach designs of this period average upward of 131,000 lb, with a range from 125,000 to 144,000 lb. Diner designs average about 144,000 lb and range from 139,000 to 154,000 lb. Sleepers average about 147,000 lb with variations from 138,000 lb to 160,000. Partial-length dome cars range from 152,000 lb to 164,000 lb, and full-length domes now in service weigh over 200,000 lb each.

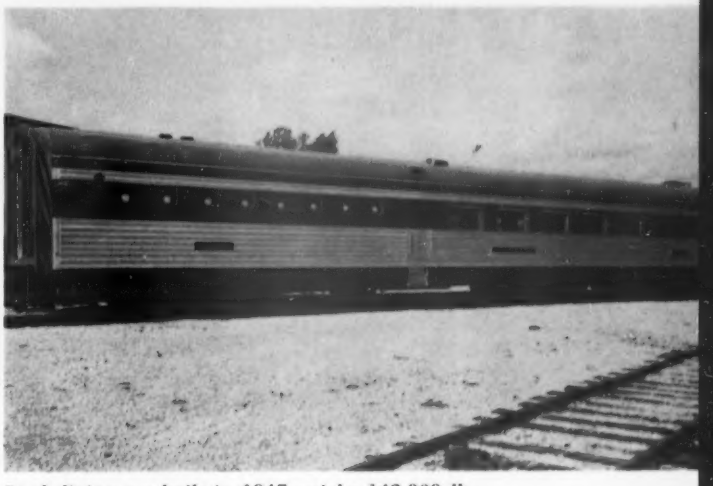
From the beginning of the era of lightweight construc-



Built of low-alloy high-tensile steel. Weight, 125,000 lb.



A 144,000-lb. low-alloy steel car built in 1951.



Steel dining car built in 1947 weighs 142,000 lb.

This dome car of stainless steel weighs 207,000 lb.

Self-propelled cars provide good service at low cost.

One suggestion for controlling the weight situation.

tion the riding qualities of passenger cars have been the subject of close study. During the early years of the period several types of trucks were developed which departed from the conventional form of construction. These, however, were soon superseded on new cars by modifications of the conventional drop-equalizer swing-hanger truck which have provided excellent riding qualities.

The three major changes now in effect are the replacement of the elliptic bolster springs with coil springs and vertical snubbers, the suspension of the bolster and bolster springs on outside swing hangers, and the replacement of the center plate with a center bearing 24 in. in diameter, the car body and truck bearing being separated by a 1-in. composition fabric disc. The outside swing hangers and the wide center bearing have increased the steadiness of the car-body ride and the latter serves to prevent the tendency of trucks to "shimmy" at certain speeds.

Tight-lock couplers have also contributed to improved passenger-train performance comfortwise by eliminating uncushioned slack between cars and so removing the cause of unpleasant longitudinal shocks, particularly in starting.

Another significant development in passenger-car design has taken place since the end of World War II. That is the advancement of standardization of passenger-car types by the builder in cooperation with the AAR. All passenger-carrying cars are now built to a length of 85 ft. In the case of coaches and various coach and parlor combinations, window spacing and seat spacing, lockers and luggage space have been established. While definite floor plans have not been adopted for sleeping cars, each builder is free to standardize subdivisions of the standard car length which can be assembled in varying combinations to suit the needs of the service.

The economic advantages of this plan are obvious and there is no real limitation on the variety of decorative treatment which may be selected to make the accommodations attractive to the patron. This has served to bring a degree of order out of a situation which rapidly became chaotic soon after the new era of lightweight construction was inaugurated. Not infrequently orders of a single railroad for several types of passenger-carrying cars involved car lengths differing by a few feet—sometimes by only a few inches—each car being an individual design.

One development made since World War II involves a new conception of the use of the rail motor car. Cars with ample power for rapid acceleration, operated singly or in m-u trains rather than as motor cars and trailers, are an instrument of low-cost but much improved service in light-traffic territory.

The preceding paragraphs have attempted to review the significant events in the evolution of passenger-car design which have taken place during the 20 years which have elapsed since the beginning of the era of lightweight construction. It has been a period in which two objectives have been pursued. One has been the reduction of weight and the improvement of the economics of passenger-car construction. The other has been increase of passenger comfort and the attainment of more luxury in the accommodations offered the patron on the best trains. To some degree the two objectives are in conflict.

Weight reductions of one third to three eighths were effected at the outset of the lightweight era by the employment of aluminum alloys, low-alloy, high-strength steel and stainless steel as the materials of passenger-car construction. Coaches of the new materials weighed about 53 tons; dining car, 59 tons, and sleeping cars, 63 tons. Recently built coaches weigh about 66 tons; diners, 72 tons, and sleeping cars, 74 tons. These are increases of 11 to 13 tons, not counting the dome cars which are not comparable either structurally or in the character of accommodations which they provide with any cars available during the earlier period.

Certainly no one advocates going backward in the matter of comfort for any traveler whose trip lasts for several hours. But the need for trains of less weight which are less expensive to operate persists, not only because there are classes of passenger traffic not in the luxury class which the railroads are not going to be able to dispense with, but because they need rolling stock which can be adapted to more flexible service requirements than the present standard type of main-line equipment. Does this not suggest consideration of some of the European designs which have achieved major weight reduction by departure from conventional structural design? It is encouraging that active, if limited, consideration is already being given to this problem here.

THE POTENTIAL MARKET for railroad passenger travel is tremendous—and growing.

How Can Rail Travel Be Sold?

Why is railroad passenger travel so hard to sell? Why don't more people ride passenger trains? Obviously, if any aggressive railroad could find the answer to these questions, it could go a long way toward remedying the so-called "passenger problem." The trouble is, these questions aren't easily answered. However, in the past several years there have been some well-planned and organized efforts in this direction. These have taken the form of questionnaires, interviews and surveys conducted both by railroads and outsiders. From these have come the findings which follow.

Surveys among existing passengers have uncovered three primary sources of complaint: (1) rough and uncomfortable rides, (2) unclean cars and sloppy housecleaning, (3) poor food and service or high prices in dining cars.

These seem to be the outstanding complaints. To be sure, there were others, many of which did not apply to the overall problem.

Those outside firms and consultants which conducted some of these passenger and market studies all came back with the observation that few railroads have done

THE ADVANTAGES of rail travel are played to the hilt by the SP's famous, prize winning road-side bulletin boards.

everything possible to capitalize on the many advantages their services already possess and to sell effectively in a highly competitive market.

One survey turned up the rather interesting fact that as a group railroad passengers are generally more relaxed and better satisfied with the service they receive than are passengers who are traveling by means of either air or bus.

Intensive sales and market studies have uncovered some specific factors which influence the volume of traffic moving by rail: (1) There are definite times of the day when travelers prefer to leave on trips and arrive at their destinations. The extent to which railroad schedules conform to those periods of demand has a marked influence on traffic volume. (2) Station location determines the accessibility of railroad service, and that in turn does influence volume. (3) Price. This is a very complex subject, and its influence on passenger traffic volume is obvious. Unfortunately railroad management is not free to deal with it on a purely economic basis.

What Is Being Done?

Rough or unpleasant rides. One cure for this condition is a high standard of truck maintenance. Some railroads give passenger car trucks the closest possible attention. The things they look for closely—and remedy when they appear—are worn treads, lateral play, and worn pedestal liners. Small increases in the amount of play allowed in the design can result in rough rides, regardless of how well the track or the remainder of the car is maintained.

Unclean Cars. This can be a particularly thorny problem in view of the pressing need for reducing the high cost of cleaning and servicing. Some railroads are attacking the problem by centralizing their cleaning activities, providing closer supervision, and by improving working conditions in their existing passenger car servicing and storage yards.

Food and prices in dining cars. Surveys disclosed few people who complained about food alone, or about prices alone. Their replies seem to indicate some feeling they are not always getting a quality of food and service in line with the prices they are being asked to pay. This complaint is more prevalent in the east than in the west (where dining car services are more heavily subsidized). Another article in this issue deals at some length with steps taken by the railroads to cope with this particular situation.

Proper scheduling. This is an exacting science of great importance in the operation of a successful passenger service. It determines the availability of service during periods of demand, and also is an important factor in determining the cost of the service operated. The relationship of schedule times to individual markets and periods of demand appears to be the most important single factor in governing the volume of passengers traveling by rail. There is a growing awareness of these facts.

Station location. The very fact that most railroads are "all over town" makes it possible for them to spot their stations in the locations most convenient to the important sources of travel: homes, stores and offices, and hotels. In many cases, these areas have shifted since stations were established.

There exist several excellent and economical opportunities for closing costly old structures and opening new, efficient stations located with respect to present-day travel markets and travel habits. Other opportunities are presented by the operation of "suburban" stations for main-line trains in many metropolitan districts. While recognizing the opportunities, many roads have been unable, or reluctant, to make investments of any magnitude in a service that overall has shown itself to be a deficit producer in their particular case.

Price. The perfect answer to this problem has yet to be found. But studies have indicated that there must be some relationship between fares and the general value of the product offered. It is no longer adequate for a railroad to provide sheer unadorned transportation. There are many other ways of getting around, and these other ways are often less expensive, out of pocket, than rail travel.

Rail travel must offer advantages, and its price must be determined by the overall value of what is being offered as compared with what can be purchased elsewhere for the same money. Thus the service offered by infrequent, local trains having second-class equipment clearly is not worth the same price as the de luxe, high-speed service being offered on other trains. Passengers seem to buy on the basis of *value*, not on the basis of price alone.

A good salesman is priceless.

There's no doubt about it, dome cars really bring in the passengers.

More Ways to Increase Traffic

Incentive fares, package tours, rail-auto plans, and "tie-in sales" are being emphasized in drive to stop traffic erosion

Some new approaches and techniques are being used in the continuing problem of merchandising and selling railroad passenger transportation. These are an evidence of the industry's preparation for the period of hard selling in a highly competitive market which appears to lie ahead. It is hard to evaluate each such development separately and accurately, but the evidence at hand seems to indicate that those railroads which are making skillful use of such sales tools have been faring a little better than average.

Incentive Fares. Among the significant developments of the past year have been (1) the family fare plan originated by the New York Central, (2) the "ladies day" excursions created by the Chicago & Eastern Illinois, and (3) the 25 to 33 per cent experimental reduction in regular coach fares being evaluated by the Baltimore & Ohio, Pennsylvania and New York Central.

It appears quite universally agreed that the family fare plan has brought travel back to the rails, and has given the railroads a firm selling point with which to meet the competition of the family automobile. Both eastern and western roads are actively seeking a plan which will iron out the many local differences between the plans now in effect, and will provide ticket agents

Credit cards are returning to fashion as more railroads find them useful sales tools.

Main line "suburban" stations convenient to residential areas are a proved method of stimulating long-haul traffic. (Highland Park, Dallas, on the M-K-T)

Auto rental plans are being actively promoted as a means of winning the business and personal traveler away from the private automobile.

everywhere a simple, easily salable package that will apply universally to all lines.

Rail-Auto Plans. An old plan is taking on new importance as an increasing amount of railroad sales effort is directed toward the "automobile market." For the traveler, rail-auto plans solve the one big drawback of railroad travel: the difficulty in "getting around" at the destination. By tying together the use of a rental automobile at the destination with the comfort, convenience and economy of train travel, railroads can offer an appealing sales package—something with positive appeal for the traveler who goes by auto simply so he can have a car when he gets there.

The auto-renting companies are pushing rail-auto plans hard as a means of stimulating their own business (they have learned that better than 80 per cent of their patronage come from out-of-town travelers who use commercial forms of transportation).

At least one auto rental system has stepped up its rail-auto travel promotion by establishing car rental offices right in the railroad depots. In the course of the past year it has established rental offices, sales counters, or telephone call stations in 35 different railroad stations and is actively expanding this program.

With railroad credit cards coming back into increasing use, most auto rental agencies will accept any of these credit cards in place of the customary deposit and, in some instances, for billing of charges.

Package Tours. These are being used as a convenient method of merchandising railroad travel to vacation travelers—particularly those who are budget minded. The past year has seen several more railroads undertake this type of traffic promotion. Prominent in the tour business are the Union Pacific, Chicago & North Western, Baltimore & Ohio, Milwaukee, Burlington, Santa Fe, Boston & Maine, New Haven, Seaboard, New York Central, and Chesapeake & Ohio, among others. In some cases, these package tours are being used to stimulate travel in off-peak periods. In others, they are tied in with excursions. And in still others, they are a year 'round method of merchandising passenger travel.

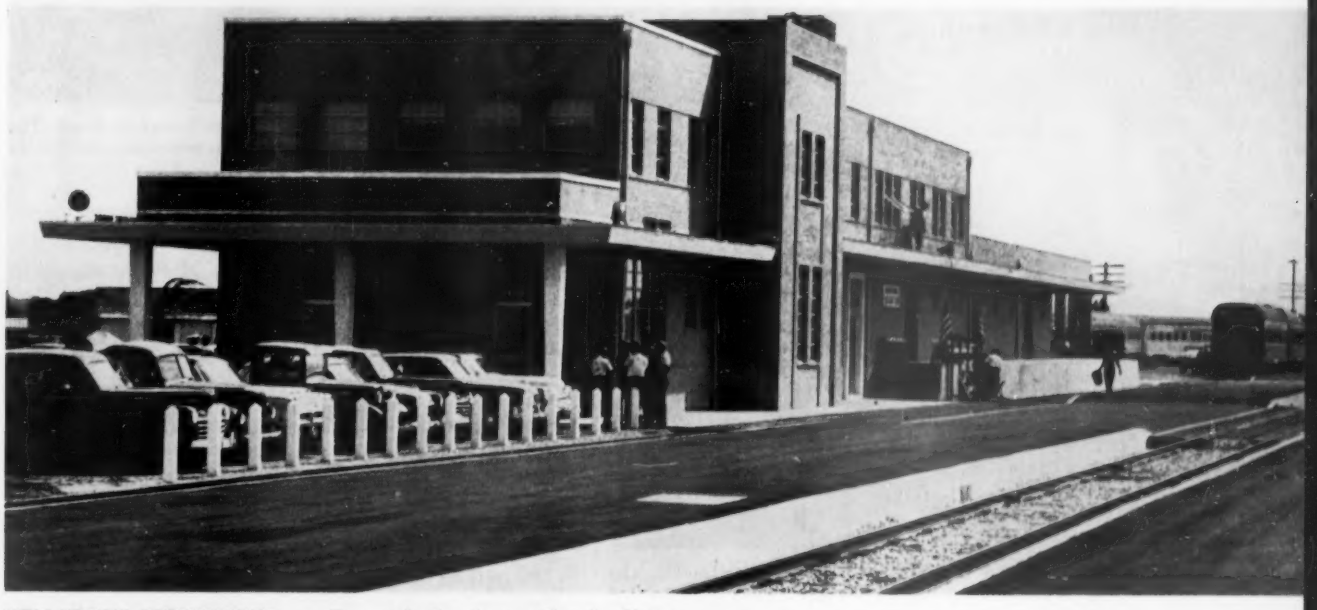
However, all of these tours are carefully planned to avoid direct competition with similar tours making use of railroad transportation which are offered by independent tour operators.

Sightseeing Tours. Train vacation travel can be stimulated, some railroads have found, by greater promotion of local sightseeing tours and excursions, both as "side trips" and as "main attractions." They have been used successfully to lure more vacation travel to the rails. A variety of sightseeing tours are available in almost every city of any size or of historical or scenic interest.

Hotel Reservations. A few railroads have found that making hotel reservations is a useful sales tool. Commercial hotels are having highway competition problems, too (motels on the edge of town which cater to those who travel by auto are taking some of their business) and have found that a large part of their transient business comes from the traveler who uses commercial transportation.

As a matter of interest, at least two large hotel chains have recently instituted family plans in an effort to stimulate business. This might be tied in with the railroads' promotional efforts along the same line.

LOW LINES, as exemplified by this new building at Lubbock, Tex., are characteristic of today's stations.



TWO-STORY STRUCTURES usually are built where railroad offices are to be included, which the ACL did here at Sanford, Fla.

What's Happening to Stations?

There is a definite trend toward consolidation of freight and passenger facilities in one structure, sometime at the town's outskirts — The automobile is making larger parking areas necessary

One of the things the railroads are doing to make rail travel more appealing is the modernization of existing passenger stations and the construction of new ones. In many instances, these structures are built and placed in operation without fanfare so the public at large is unaware of the costly improvements. In other instances, where railroads are more conscious of the value of good merchandising practices, the new stations, sometimes gaily festooned, are inaugurated with ceremony, with addresses by both railroad and town officials, and with perhaps an "open-house" or souvenirs marking the occasion.

More often than otherwise, the new buildings are one-story structures which combine both freight and passenger facilities. Frequently they are finished on the exterior with brick or stone or both, and sometimes resemble the

ADEQUATE PARKING SPACE convenient for passengers using through trains has been provided by the New Haven at Route 128 (Boston).

COMBINATION of freight and passenger facilities is the trend in contemporary station design.

STATIONS LIKE THIS have often been mistaken for the modern ranch-style homes which are so popular today.

OUT-OF-THE-CITY sites may be the coming trend. The Erie built this station for through passenger service in the outskirts of Cleveland.

modern ranch-house style of residential construction that is so popular today. In fact, many of them may easily be mistaken for ranch homes.

Low Modern Lines

In general, the roofs have little pitch to them and are cantilevered beyond the wall lines. This construction not only accentuates the low lines of the design but also provides canopies for shelter. Very often, the name of the railroad as well as that of the town is shown by aluminum or stainless-steel signs mounted on the walls or roof. One of the striking features of many of these new stations is the abundant use of glass to form so-called "picture" windows so that the fenestration actually becomes an important factor in their modern appearance. Entrances to waiting rooms and ticket offices are usually through double plate-glass doors.

Designs for station interiors continue to make use of modern building materials and to feature a club or lounge-type atmosphere. Color is liberally employed on the walls and floors and in the plastic coverings of the furniture.

The observant rail traveler will also note that more stations are being air conditioned, not only the new buildings but also those that are being modernized. Because of the expense involved, however, these installations at present are mostly limited to the more important stations which incorporate restaurants or lunchrooms, or to those structures containing railroad offices.

Influence of the Automobile

The automobile has had a profound effect on railroad stations, not only in making it necessary to provide larger parking areas but also in determining their size

LOUNGE-TYPE INTERIORS, with indoor plantings, such as that of the Milwaukee station at Tacoma, Wash., are becoming typical.

TILE of various types is popular for interiors, as in Erie's Lee Road (Cleveland) station.

and even their location. Surveys conducted by some railroads have shown that the passenger traffic that can be generated in any city or town is markedly influenced by the station's location and its accessibility with respect to (1) the residential area, (2) the business and shopping districts, (3) hotels, and (4) important connecting railroads and bus lines, in that order.

The surveys have also shown that the private automobile is the principal means used by patrons (three out of four) for reaching and leaving stations, except at downtown locations in large metropolitan centers such as New York and Chicago. Hence, the provision of adequate space for short-term parking, and proper policing to see that such area is not usurped by railroad employees, is of great importance. Black-top pavement is the most popular surfacing used for parking areas as it is relatively easy to maintain.

Very often adequate parking areas cannot be provided where a town or city has grown up around a station location. In some instances, a new station has been built near an arterial highway close to the outskirts of a town where larger areas are available for parking, in some cases permitting the old buildings to be rented, sold or torn down. In at least two instances railroads have cooperated with town officials for the relief of congestion and blocking of city vehicular traffic, and have moved their stations to new, less congested locations. In this connection, the removal of tracks from downtown districts to new routes which go around the town may be attractive from an operating standpoint in addition to affording an opportunity for placing the station in a more desirable location.

In one instance, an eastern railroad built a new station 15 miles from a metropolitan passenger terminal, locating it at an intersection with an arterial highway. Ample parking space was provided. All through trains are stopped at the new station and, since it saves many passengers a half-hour's drive to the downtown terminal, the new facility has been successful in promoting through as well as suburban passenger traffic.

Maintenance Being Reduced

These are some of the things that are happening to railroad passenger stations. In addition, at points where business has been declining, passenger and freight, baggage and mail facilities, formerly housed in two or more structures, are being combined in one, thus reducing maintenance costs. Also, many two-story frame depots with an adjoining one-story freight-and-baggage structure have been revamped by modernizing the one-story section, including the passenger facilities in it, and tearing down the old two-story section, again with savings in maintenance as well as a marked improvement in appearance.

Whether a station project consists of either modernizing or new construction, one of the items certain to receive consideration is lighting. Railroad architects and builders have taken note of the fact that brightly lit supermarkets, gas stations and bus stations are attracting business and they are incorporating the latest thinking on lighting methods in their own designs. Recessed fixtures of both fluorescent and spotlight types are used in the interiors, and floodlights and recessed canopy lights are used for platform illumination. In many instances spotlights are played on station signs or illuminated signs are used.

When the railroads make major investments on station improvements, it is strong evidence that they have confidence in the future growth of these towns and cities and are making a tangible bid for passenger business throughout the nation.

What's Interesting—

What's New

IN PASSENGER TRAFFIC

Adjustable Headrest Seat

A completely new reclining seat especially designed for long distance overnight coach travel has been introduced by Dwight Austin Company, Kent, Ohio. The seat features an adjustable leg rest with built-in spring action to make its operation easier, a full reclining seat back, and an adjustable headrest. An adjustable foot bar is at the back of each seat.

The new seats are presently in use on the Santa Fe's "El Capitan" as well as on trains of other roads. The seats, which can be rotated, can be adjusted to suit any contour of the body from a normal riding position to various degrees of recline.

The fully adjustable reclining seat is completely upholstered in foam rubber and, in the case of the Santa Fe, is covered with a super needlepoint fabric in a shade of turquoise with an Indian motif design matching the remainder of the decorations in the train. An ash tray is built directly into the base of the arm rest in such a position that it is, for convenience, within easy reach of the occupant •

Automatic Sound Slidefilm Projector

A completely automatic slidefilm projector for use with recorded talks or music is being marketed by Dukane Corporation, St. Charles, Ill. The Model 14-B-147 projector automatically advances the film to the next picture upon receipt of an inaudible signal made into the record. Use of the machine makes it possible for a single operator to make a complete presentation—using talk or music on a record and a slidefilm for illustration—with the sound and picture always in complete synchronization. The unit has a three-speed phonograph and transcription player that will handle 16-, 12-, 10-, and 7-inch records. The 8-watt amplifier and 300-watt projector are designed to give quality coverage for audiences up to 500.

The unit is equipped with an extension push-button by means of which an operator may remotely advance silent slidefilms. The Model 14-B-147 projector is 18½ in. wide, 9 in. deep, and 18 in. high. Weight of the complete unit is 42½ lb. The device will accommodate an extra speaker •

Charge-Plate Credit Cards

Railroad credit cards are returning to vogue. One difficulty with charge cards—the time required to complete necessary paperwork at the ticket counter—is materially lessened by the use of metal inserts on the credit card. With this metal plate, the card can be inserted in a printer which quickly imprints the customer's name, address and account number on the proper forms. The credit card used by the Chesapeake & Ohio (left) is a product of the Addressograph Company.

The Chesapeake & Ohio credit card may be used for all rail trips originating on that road. It will also be honored at the Greenbrier, C&O resort hotel at White Sulfur Springs, W. Va., and on the road's fleet of Lake Michigan passenger and auto ferries. The card may be used, too, on dining cars, at all Hertz Rent-A-Car stations, and for ordering tickets by mail or wire •

Book Tickets in a Hurry

Book-type tickets can be made out quickly and easily by a small hand-operated Addressograph machine. The system, developed by the Southern Pacific, is being tried by the Milwaukee in several offices. Ticket sellers are said to be highly pleased with the results obtained through the use of the machine—the "Ticket Master." Regular metal stencils for most commonly used stations are kept in a file near the machine, and are available for quick use (See *Railway Age*, August 24, 1953, page 83) •

Child's Seat for Diners

A small child's seat which can be placed on top of regular dining car chairs has been used successfully by the Baltimore & Ohio for many years. The seat, which is built in the company shops, is essentially an upholstered wood frame, with each of the four bottom pieces slightly bowed so as to create a small point at each of the four corners. When not in use, seats are stored in a locker •

Now Businessmen Can Dictate on Trains

The busy executive or salesman can now "work while he rides" through the use of "Travel-Talk"—a dictating machine designed for use by travelers on trains and in stations and hotels. Plastic record-belts are dispensed for 25 cents each by a coin-operated device attached to the machine. When dictation is finished, the record-belt can be slipped into an envelope (supplied free) and mailed "home." Regular Dictaphone Corporation equipment is used, with regular Dictaphone maintenance and servicing available in the field. The booths, machines and other equipment are supplied on a contractual basis by "Travel-Talk," 326 South Main st., Akron 8, Ohio.

The manufacturer claims that no difficulties are anticipated with respect to the pickup of background noise during operation of the dictating machine either on board moving trains or in crowded stations •

Tote Your Own Luggage

Personal luggage carts, a new convenience for travelers, are being tried out in Pittsburgh and Boston. The carts are placed in coin-operated racks—nine to a rack—which can be moved about and placed in strategic locations about the station at entrances, on platforms, or at taxi stands. Passengers entering the station place a quarter in the slot of the nearest rack, remove one carrier and place their baggage on it. Other racks are placed at train side. When the carriers are returned to another rack, the mechanism returns a dime.

Conversely, patrons arriving on incoming trains may obtain carts at trainside, convey their luggage to the station exit or taxi stand, replace the carts in the racks located there—again receiving a 10-cent refund—and go on their way. The carts, installed to supplement "Red Cap" service for the convenience of patrons who would otherwise carry their own luggage, are made of light tubular metal and move easily on rubber-tired ball-bearing wheels. Each will accommodate three or four average-sized pieces of luggage. Spokesmen for the railroads said that the luggage carts, which were designed and installed by the American Locker Company will be installed at stations in other cities if public response is favorable •

For Better Taxi Service at Stations

A new "Ta-Ka-Check" system has been inaugurated at the PRR 30th Street Station in Philadelphia for assigning cabs on a first-come-first-served basis.

Using a system commonly used in stores, the passenger removes a numbered check from the machine shown at right and stands until the starter calls his number. Passengers' attention is called to the system by means of the illuminated sign above the machine, and by periodic tape-recorded announcements made over a loudspeaker just below the lighted sign.

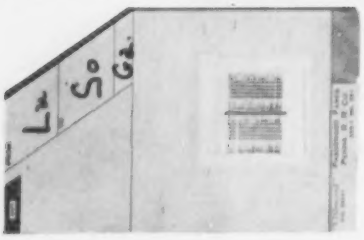
The Ta-Ka-Check system was first install d at Philadelphia on October 2, 1953. As originally installed, the machine was not equipped with the tape recording device for announcing the facility to station patrons. When it was discovered that many incoming passengers were totally unaware of the new service, it was decided to install the tape-announcing system to call attention to the new taxi check method.

The check unit is installed in a weatherproof metal case mounted on caster-type wheels. It is reported that the installation of the Ta-Ka-Check system has materially reduced the confusion normally encountered throughout the day at taxi stands and provides an "even break" for patrons •

More on next page

What's Interesting—

What's New



A TICKET OFFICE THAT GOES TO THE CUSTOMER has been introduced by Trans World Airlines in the Los Angeles and San Francisco areas. The truck-mounted offices are equipped with two-way radio connecting the roving ticket agent with the main "down town" reservation office, making it possible for him to complete sales on the spot. The right side of the truck body opens to provide an outside ticket counter; in inclement weather, customers are admitted to the interior through a rear door. TWA states that the offices will travel predetermined routes in outlying areas, will call at large industrial installations, and "be on hand" at special events. For protection of the agent, the truck has a built-in safe equipped with a specially constructed delayed action time lock claimed to be virtually hold-up proof. It also has a public address system.

Finding Routes & Fares Fast

The time required to find fares, routes and tax has been materially reduced at the Pennsylvania's new Pittsburgh ticket office by the use of microfilm and a "Filmsort" microfilm projecting apparatus. This office requires fare information to approximately 6,500 different destination stations.

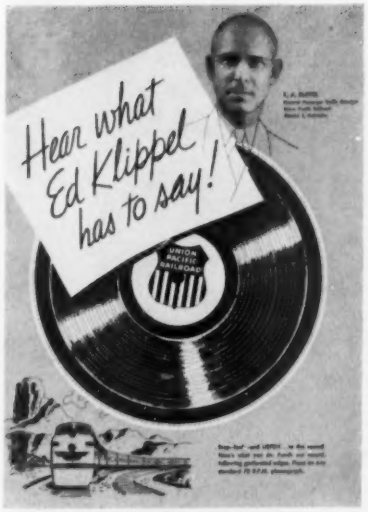
The basic information—one-way and round-trip fares, Pullman charges, and tax—is assembled alphabetically by states and stations and typed on regular typewriter-sized white paper. This is then photographed on microfilm—one page to a "shot"—which is mounted in a convenient cardboard holder (shown above) which can be easily indexed and filed. A clerk seeking a particular rate withdraws the proper cardboard holder from a convenient open file and places it at the top of the machine which projects the information on the large front screen, where the required information can be quickly read.

Necessary changes in listed fares or tax is easily made by correcting the typewritten master fare sheets and reducing these corrected sheets to microfilm by local representatives of the Filmsort Company. When projected on the screen of the viewer, which is approximately 11 in. square, the typewritten data is reproduced at nearly its original size. Fare information on principal points in the United States, Canada and Mexico is provided •

New Information Board at Washington

An entirely new and unusual method of posting incoming train arrivals will shortly be placed in operation at the Washington, D.C., Union Station. Incorporated in a new $145,000 stationmaster's office on the train concourse, are large second-story screens on which announcements are flashed by magic lantern-type projectors set up within the building. Information on train arrivals is assembled by telegraph operators immediately adjacent to the projection machines. Pertinent information is put on a standard slide (a separate slide is kept on file for each regular train), and placed in the projector. The terminal management worked out the new screen idea and the projection machines were built by the Charles Besler Company, Newark, N. J.

The new stationmaster's office was built following the demolishment of the old office when the "Federal" crashed through the wall of the station on January 15, 1953. The four projection screens installed above the stationmaster's office are each 5 ft-4 in. wide and 6 ft-8 in. high. One of the four projection machines in use is shown in the illustration at the right above. The new projection system is considered to be a vast improvement over the old chalk-and-blackboard system which could be viewed by relatively few persons at one time. A modern public address system has also been installed •



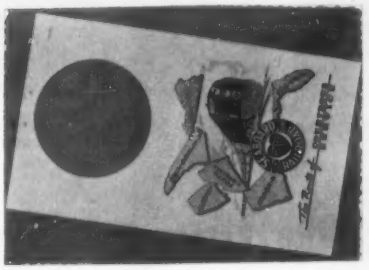
Talking Advertisements

A process of impressing phonograph recordings on plastic-coated paper has made possible the creation of advertisements that talk. Developed by Sight 'N' Sound Enterprises, New York, it was recently used by the Union Pacific for an advertisement in Ticket Agent magazine. The record is easily removed from the advertisement by pushing it out along perforated lines, and may be played on any 78-rpm phonograph.

H. B. Northcott, general advertising manager of the UP, stated that the railroad has used conventional recordings for promotional purposes in the past but that such recordings were always distributed by direct mail, and never before as an advertisement bound in a magazine. "This new application fits right into our program," stated Mr. Northcott while predicting that the technique would soon find its way into magazines of general circulation and perhaps even into newspapers. The UP advertisement, is believed to be the first such advertisement in the transportation field •

Its Coming: Vestibule Diaphragms in Color

An entirely new impregnated fabric has made possible the design and construction of vestibule diaphragms that are colorful and are said to have an unusually long service life. The diaphragms, manufactured by the Morton Manufacturing Company, Chicago, are made with Dynel, a new Union Carbide fiber. The fabric is said to be extremely tough at all temperature extremes, resistant to degradation by chemicals, and highly fire resistant. Although currently manufactured only in black, colors will soon be available to match various car color schemes •



Paper Bib

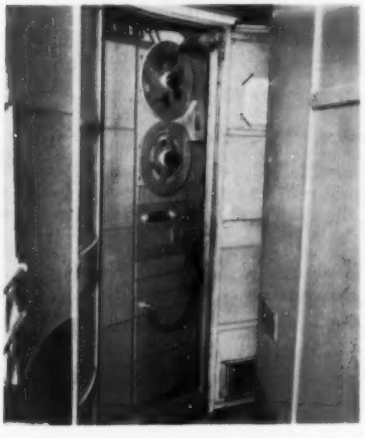
Bright and gay to catch the kiddies' eyes, is a new moisture-repellent paper bib introduced by the Seaboard. Distributed to children, along with a special child's menu, it is fastened by tucking the top ends under the collar.

The gay pattern printed on the bib is intended to help provide diversion for younger children while they are not eating. The bib, together with special children's menus and service portions, is one of the methods by which the Seaboard is seeking to encourage family travel. Parents, the road reports, are especially pleased with the bibs •

Storage for Book Tickets

A few cents worth of wood and a little ingenuity were all that were used to alter this conventional ticket case to accommodate the new book-type tickets. The rack illustrated was worked out by SP ticket agent W. L. Gabriel at Long Beach, Cal.

By removing existing wood or metal partitions most existing racks can be similarly converted, facilitating storage and use of book-type tickets •



Music for Passengers

An improved system for delivering radio or recorded music to individual cars or whole trains has been introduced by the R. W. Neill Company, 4719 West Sunnyside ave., Chicago.

The system can deliver prerecorded music from a 14-inch reel of magnetic tape (good for 8 hours' playing), entertainment from a standard broadcast band radio receiver, and announcements made over a public address system.

It is a high fidelity system with speakers, amplifiers and input equipment specifically engineered for use on railroad passenger trains. Included is an automatic noise level control device which raises and lowers program volume to a level consistent with background noises.

Consequently, a recorded program loud enough to be heard when the train is in motion will not be overly loud when the train is stopped. The basic units can be assembled in any combination, to play radio and recorded music on separate speakers simultaneously, or with separate control boxes in individual rooms or cars. When used for train announcements, the public address system can be adjusted to be delivered from all speakers (regardless of whether they are in use) and to cut out all other programs for the duration of the informative train announcement •

ONE-CAR "POLICY" sleeping cars frequently run up costs out of proportion to revenues.

TIGHT CONTROL of sleeping car space—avoiding operation of unneeded cars—is made necessary by high labor costs.

How Can Pullman Traffic Be Made

How patronage can be increased and costs trimmed to make this operation financially more attractive to the railroads

It's a fact—first class (or "Pullman") travel isn't as profitable to the railroads as it once was. And further, in recent months it has been showing greater traffic losses than its more humble brother, the coach. The problem is: What can be done about it?

In a canvass of railroad people who should know, *Railway Age* found many who believe there are unexploited opportunities for improving the current situation. Further, the picture is not all black. The Pullman Company stoutly contends that a sizable segment of the present first class traffic is now being handled profitably. Indications are that, given proper traffic development and cost controls, the volume of profitable first class traffic can be increased.

But how?

It has long been considered that railroad first class travel is a reliable barometer of general business activity, rising and falling as business levels change. The current decline in first class travel can be traced to three primary causes: (1) the falling off of general business activity throughout the country, (2) the cessation of active hostilities in Korea, and (3) reduced size of the armed forces coupled with the new policy of centralizing training activities, thereby reducing the need for military transportation.

In spite of these conditions, the railroads can raise their volume of first class travel if they can increase their share of the total market. This obviously calls for some hard selling, and for the best use of the sales tools now available to the industry.

Most railroad passenger men agree that railroad first class fares and Pullman space charges are now just about as high as the market can support. The industry must face the fact that railroad first class transportation is one of the most expensive modes of travel. Long range traffic trends seem to indicate that an increasingly large portion of the railroads' potential market believes that other forms of transportation—the auto, the airplane, and even the railroad coach—offer a better value for the money. This condition can be remedied either by reducing fares, thereby bringing the price more in line with the value of the product, or by increasing the value of the product.

Inasmuch as the value of the product is determined by many intangibles which seldom cost nearly as much as the bare transportation itself, it might be easier and more economical to improve the value of the product. This can be done by paying more critical attention to:

- The quality of food and service offered in dining cars, in relation to the price charged.
- The smoothness with which the train is handled through terminals and over the road by engine crews.
- The courtesy and consideration paid to passengers by railroad employees in all positions, and recognizing that their behavior is often a reflection of the attitude of higher officials toward the passenger business.
- Maintenance of track and equipment to insure a smooth ride.
- Properly located, planned and operated passenger stations.

The Pullman Company's efforts to supply aggressive leadership are sometimes thought to be hamstrung because it is owned by the railroads it serves. Pullman must concentrate most of its attention on equalizing the sometimes divergent needs and interests of its owners and on

"SERVICE IS YOUR BUSINESS"—a slide film from which this picture is taken—is used to keep employees "sales conscious."

FREE HORS D'OEUVRES are served during cocktail hours on the CRI&P-SP "Golden State."

More Profitable?

nationwide, generalized promotional efforts. The company has, however, done much to improve the quality of the product it produces—insofar as it has direct control—and to push its sales by means of national advertising. This seems to be about as far as Pullman can go; the rest is up to the individual railroad.

Among ways railroads have found by which sales might be further increased are these:

- Recognize the telephone for the potent sales tool it is; make a positive effort to convert telephone inquiries into sales. Use a good telephone voice and telephone manners at all times.
- At ticket counters and ticket windows, devote more attention to direct sales efforts. Try the effect of the simple question asked at every sale: "Pullman?" or "Parlor Car?"
- Pay close attention to the smoothness of train handling and train riding qualities.
- Watch dining car service for quality of food, type of service, and prices. (If prices are high, food and service should be impeccable.)
- Exploit the automobile market by pushing the convenience and comfort of rail travel coupled with the use of rental autos at the destination.
- Seek ways and means of introducing younger business men to the comforts and advantages of rail travel.

Cuts Costs, Too

Simply increasing traffic volume is not the whole answer, obviously. If increasing volume results in greatly increased costs, the net result may not be favorable. The difficulty is to hold costs more or less stable, while increasing traffic volume and revenues.

Pullman service, because of the unusually large amount of labor involved in the production, is particularly vulnerable in an era of rising labor costs. There appears to be little that can be done about this under existing conditions, other than eliminating outlying servicing points and seeking fullest value for every wage dollar paid out.

Another problem is the high cost of present day streamlined sleeping cars (between $200,000 and $250,000 each). Progressive railroads are working with the car builders toward a solution to this problem.

Various railroads have found other ways in which, under present-day conditions, costs can be trimmed without undermining service:

- Highest possible utilization of individual sleeping cars. Where further improvement is impossible on a single railroad, it works with other roads to achieve two- and three-line pools. This divides the high cost of ownership over more runs, reducing the cost per run.
- Greater alertness to traffic fluctuations, and tighter control of reservations to prevent operation of excess cars when traffic is light.
- Greater standardization of car design to reduce the cost of maintenance and inventory of parts.
- Critical evaluation of light one- and two-car runs requiring servicing and cleaning facilities at remote points.
- Reduction of light one- and two-car "policy" runs to an absolute minimum. On those that are essential, work especially hard to keep traffic high. This reduces the burden of these costs on other services.

PULLMAN COMPANY CARS IN ACTIVE USE

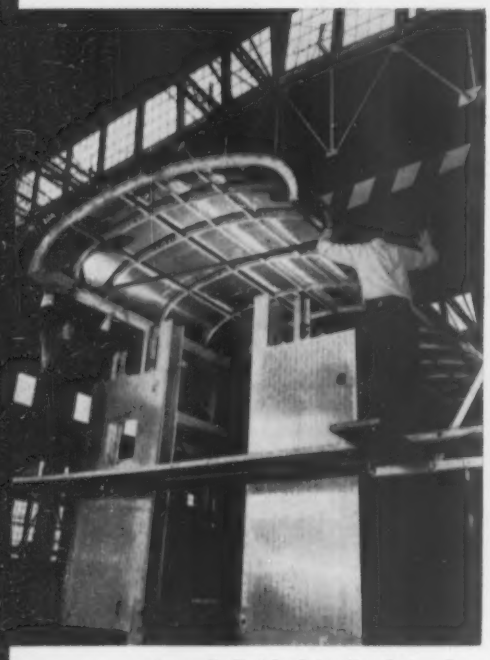
As of April 1, 1954

	Modern streamline cars	*Older "heavyweight" cars*
SLEEPERS		
In regularly scheduled line services	1,710	1,155
Extra cars for overflow and special services	304	1,451
Total in service	2,014	2,606
PARLOR CARS		
In regularly scheduled line services	68	83
Extra cars for overflow and special services	7	43
Total in service	75	126

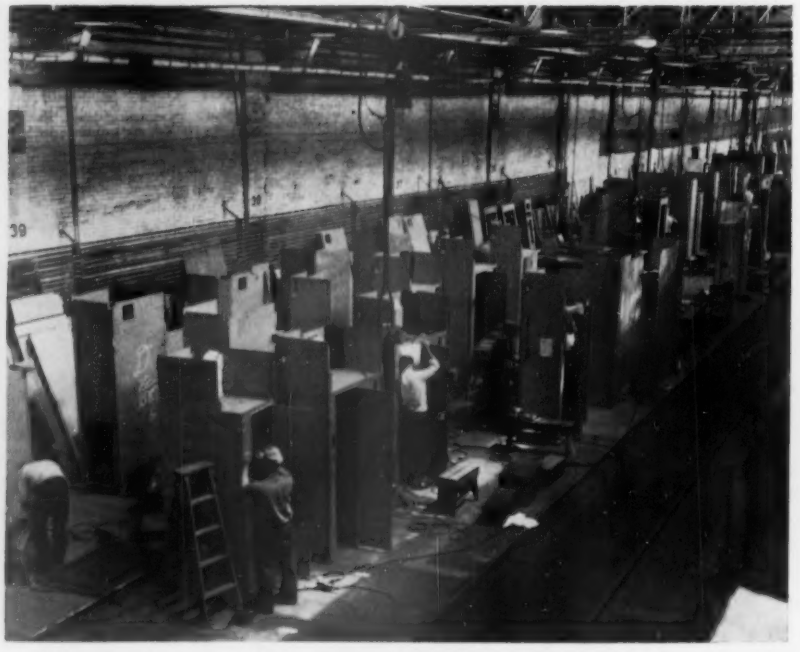
Looking toward the outgoing end of the Budd assembly line. Full-length dome cars are shown on the center track, other types on the other two tracks. In the foreground is an upper level dome floor structure.

How a Passenger Car Is Built

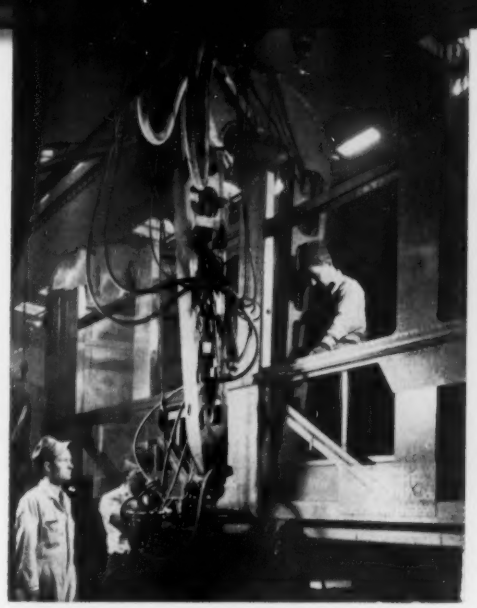
A look at what goes on in the manufacturer's plants



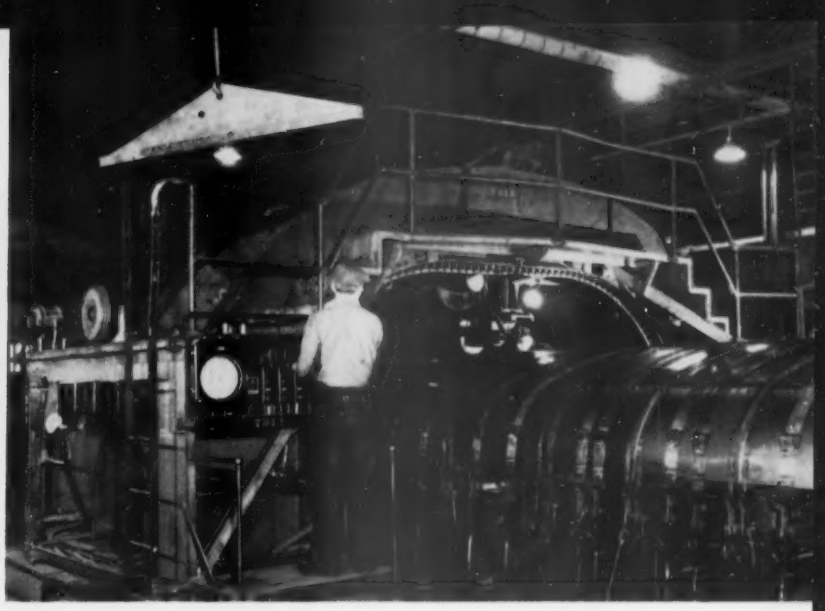
A roof, finished in jig, being lowered onto body structure. (ACF)



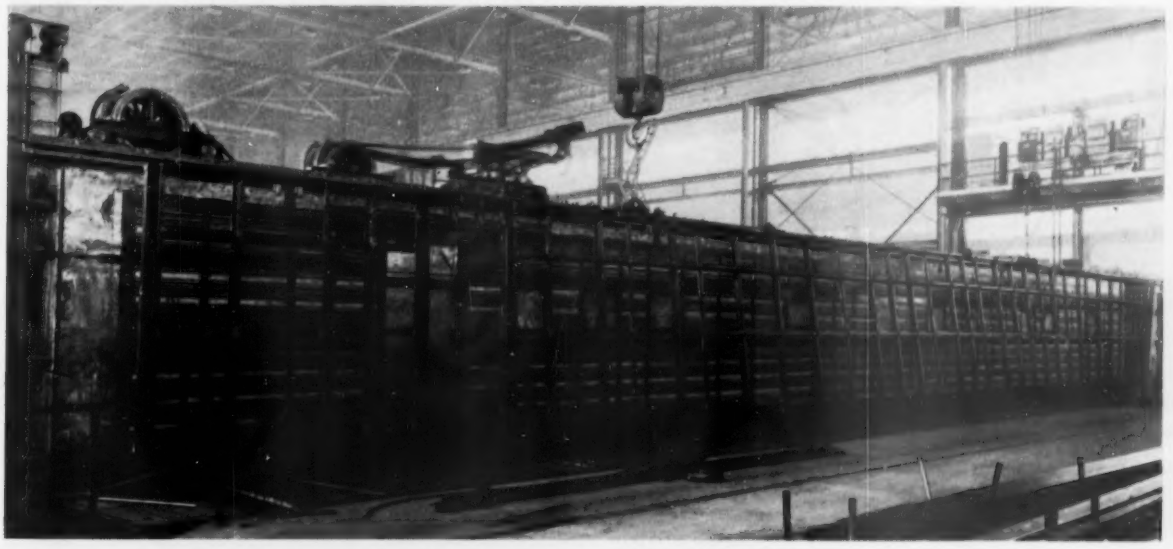
Building partitions for sleeping-car interiors. These will be installed in the cars as units. (ACF)



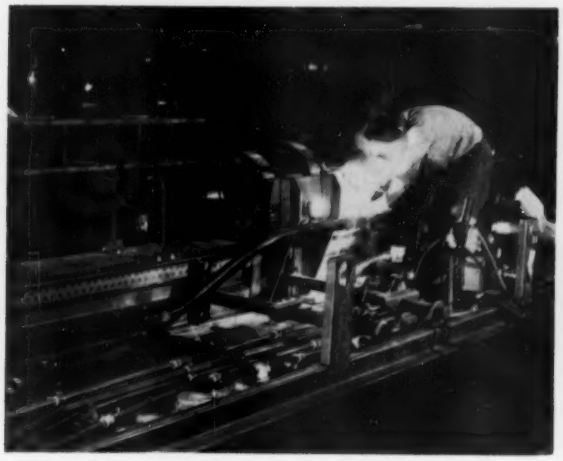
A side frame, assembled in a jig, is being welded to the underframe. (Budd)



Here roof sheets are being spot welded to the roof frame. The welding carriage spans the roof. (Pullman-Standard)



Facilities in the Pullman-Standard car building plant are arranged for a complete side-frame unit to be set up for welding side sheathing with stiffeners applied on the inside surface.



All piping and underbody equipment is installed on the underframe while it is bottom side up. (Budd)

A jig in which underframes are assembled. Three underframes can be seen on the line. (Pullman-Standard)

Railroads find that use of R.P.O. space by the Post Office for storage mail to avoid payment of regular storage car charges is causing serious delays to fast trains.

Fighting for Mail Traffic

By PHILIP A. HOLLAR
Vice President—Assistant to the President
Association of American Railroads

A disturbing development of the past year has been the increasing diversion, both actual and proposed, of mail to other carriers. Some of this diversion is legally questionable and some of it economically questionable. Since 1916, railroads have been required by law to transport all mail offered them by the Post Office Department, and to provide such transportation on any train operated, under the conditions and with the service prescribed by the postmaster general. In addition, the railroads are under legal obligation to construct railway post office cars according to Post Office Department specifications and to provide station space for handling mail and for offices for postal transfer clerks. Failure to do so may result in such fines as may be determined by the Post Office Department.

The railroads have maintained liaison with the Post Office Department since 1910 through an indepdendent Committee on Railway Mail Transportation. In 1953, all of the functions of this committee, excepting those dealing with rates, were assumed by a new Railway Mail Transportation Division of the Association of American Railroads. This division will be concerned with

mutual improvements in operating practices and the development of mutually satisfactory accounting procedures.

The decision to bring the committee and its functions into the framework of the AAR reflects the growing importance and complexity which mail matters have assumed in recent months. As part of the AAR the new Railway Mail Transportation Division will have at its disposal the facilities and services of other AAR departments and personnel, thus enabling it to deal even more effectively with matters relating to the transportation of mail.

As a part of the mail handling service, the Post Office requires the railroads to furnish (1) all facilities necessary for safeguarding the mail while it is in their custody, (2) space in railway post office cars for carrying on en route such post office functions as sorting and distribution of mail, including that received from other connecting carriers, (3) free transportation for all postal employees and officials traveling on department business on any train operated; (4) sufficient personnel and transfer facilities to handle promptly whatever volume of mail is offered, even though there may be idle time for men and equipment between trains; (5) space at many points for loading of trucks handling mail moving by train; and (6) both storage and protection services where trucks handling such mail do not operate on week-ends or holidays.

In these respects railroads are unique among mail carriers. They are unique also in that they are the only carriers whose mail rates are prescribed by a regulatory agency and related to the average cost of providing the service.

Meeting these special obligations naturally costs the railroads money, and rates reflecting the cost of providing these many services and conveniences to the Post Office Department obviously cannot always be competitive with those other forms of transportation which only provide simple, unadorned transportation between such selected points as they have elected to serve.

Regular Mail by Air

Until recent months air transportation has been provided only for mail specified by the user through the payment of a premium rate. However, in October 1953, the Post Office Department began experimenting in the movement by air of three-cent surface mail on the heavy-volume mail routes between New York and Chicago and Washington and Chicago, and later between these cities and Florida, as well as between certain cities in Michigan and the Southwest served by feeder air lines. In this experiment the air lines have been careful to prevent establishment of either a legal or a moral obligation to move a single piece of surface mail. They hold themselves out to accept such mail on a filler basis only, with prior preference being given to all other more desirable traffic such as regular air mail, passengers, baggage and air express.

The facts in the situation are clear and unmistakable. Even without subsidy costs, mail cannot be moved by air more cheaply than by rail—especially when the cost of ancillary services, which the railroads provide but the air lines do not, are included. The public is entitled to have air mail service if it wants it, so long as it pays the additional costs involved.

Notwithstanding the fact that nearly 1.5 billion pieces of air mail were handled in the fiscal year 1953, at the regular air mail stamp rate of six cents, the Post Office Department sustained a loss of $29 million in providing the service. Contrast this with the profit of $39 million in handling three-cent mail by surface carriers, mostly railroads. If Post Office Department costs cannot be met out of six-cent air mail rates, how is it possible to improve the situation by shifting three-cent mail to the air lines?

Moreover, the movement of regular first-class mail by air is of questionable legality, and obviously inconsistent with the intent expressed by Congress when it established a basic distinction between three-cent surface mail and six-cent air mail—a distinction justified by the need and willingness of the sender to pay the additional cost of expedited service. Not only does the movement of first class mail by air seriously impair this distinction, but it discriminates against the users of regular air mail. Eventually it will result in an alert public taking advantage of bargain rates, thereby lowering the volume of regular air mail and further reducing the income of the Post Office Department.

Pick-and-Choose Trucking of Mail

As in the case of air lines, the rates which are paid truck operators who handle mail bear no fixed relation to *average* costs of providing the service. Rather, they are established in individual contracts between specific places, usually at terms and rates of the carrier's choosing. Truck operators generally furnish no distribution space, perform no sorting services, and bid only on the traffic which they wish to handle—the cream of the business. They are not required by law to provide stand-by service or facilities.

Prior to 1951 there was little highway competition for that portion of the mail moving by railroad. But now that the *average* of mail rates is more nearly compensatory for the railroads, obviously there will be segments attractive to motor carriers, who can exercise the privilege to pick and choose only those portions of the traffic they can hope to handle profitably.

These are but a few of the problems which are facing the new Railway Mail Transportation Division of the AAR. They are serious because the handling of mail is not only an important source of revenue for the railroads—amounting to more than $300 million per year—but because large railroad investments in specialized facilities and equipment required by law are also at stake.

The railroads have lived up to both the spirit and the letter of the law, ever seeking new devices, new machines, new administrative and operational techniques, all to the end of improving their service to the department and the public. Further improvements will undoubtedly be made in keeping with the volume of traffic available for handling. The railroads are strong in their conviction that the mass transportation service they provide for the handling of mail is more efficient, more economical, and more dependable than that provided by any other form of transportation.

BY GOING ALL-OUT in food and service many railroads have attracted patronage and acquired favorable reputations.

Dining Car Outlook Brightens

Meals and service further improved—Economy meals becoming more popular as grill and counter-type services are expanded

The dining car is regaining some of its prewar status as a distinctive feature of train travel. More than ever, the quality and preparation of meals, selection of menus, and the quality of service rendered by car crews are at top-notch standards. And prices have been moderated on many railroads. But the old-style dining car with its snowy-white table linen and gleaming silver and epicurean menus isn't nearly as prevalent as it once was. Economy grills, coffee shops, cafeterias and lunch counters have taken over on many runs—partly because the public's food tastes are changing—heavy meals are not as popular as they once were—and partly because these cars can offer attractive meals at popular prices and can serve more meals in a given period of time.

As competition for the consumer's travel dollar stiffens, more railroads are finding the maintenance of an attractive, pleasant dining service to be "good business." And dining car officers are demonstrating the truth in their long-time belief that the most successful dining service is the one that is most attractive to passengers.

But the railroad industry can no longer afford to support large dining car losses, so individual dining car departments are constantly striving to reduce their losses while improving their food and service. Some

have succeeded remarkably well. And they attribute their success to the use of new and remodeled cars having more efficient kitchens and service pantries, lower prices, aggressive merchandising aimed at increasing sales, intensive crew training programs, improved purchasing procedures and menu planning, greater efficiency in commissary operations, and more efficient assignment of manpower.

New Kinds of Cars

Counter cars received the greatest play during the past year, as more railroads introduced this type of service. These cars have been made possible by improved kitchen equipment and kitchen planning which makes it possible for them to operate efficiently, serving many passengers with a small crew, and still put forth an attractive, well-prepared meal. Because counters can be built in many sizes, this general type of service has been adapted to meet a variety of different needs, ranging from heavy-density trains to small trains carrying relatively few passengers. In all cases, they enable the railroad to provide attractive meal service at moderate cost.

A new wrinkle being tried on a few high-density runs is the introduction of a "refreshment bar" car designed to ease the load on the regular food-service cars by providing an auxiliary sandwich and quick refreshment service. It is reported that these cars not only have made it possible for the regular meal cars to increase the number of meals served (by reducing the demand for refreshment), but they frequently operate at a profit as well.

On trains where the lower-priced coffee shop or lunch counter cars are not practical, sales are being boosted and coach travel accommodated by means of coffee-and-sandwich coach service, sold by dining car crews during off-peak hours.

National Promotion

During the past several railroads have featured their dining car service in their national advertising, and in some cases have actually featured specific meals or dishes. This practive has not only stimulated dining car patronage—and sale of the particular meal advertised—but has helped cut costs by creating a controllable concentration of demand for a single menu item on all cars.

Dining car services are being promoted and merchandised in other ways. Tourist economy meals are back on several western and southern runs which primarily cater to the tourist who travels by coach. These menus make it possible for the thrifty traveler to get three complete meals for as little as $3.50 a day.

Other means being used to encourage patronage include posting dining car menus in coaches and sleeping cars, distributing leaflets on the train describing the meal and refreshment services available, displaying sample menus in sales offices and at ticket counters, and downright advertising. In short, dining car departments are really going out for business. Who knows, maybe even the old chime which sounded the dinner call will find its way back into service!

DINING CAR operations are being made more efficient and sanitary through the introduction of new appliances such as this garbage disposal unit.

"POPULAR and economical" is the reaction to new grill-coaches (coach section is behind the camera).

COACH MENU HOLDER—one of the many methods being used to merchandise dining car services.

"There are no modern passenger cars for military movements.... Railroad passenger car ownership is declining....We are fast losing car building capacity.... It's time we opened our eyes about...

The Passenger Car Shortage

By JAMES K. KNUDSON
Defense Transport Administrator

Let's just suppose our country should suddenly find itself confronted with the necessity of mobilizing to fight a full-scale war. All of us sincerely hope that necessity will never be upon us, but in this age of national tensions and cold war, the possibility isn't quite as fantastic as we'd like to believe. Should it happen, the very first industry to feel the full impact would be the railroads.

Are the railroads in a position to meet such a challenge? Insofar as the condition of their property, and the skill of their operators is concerned, they have never been better. But an analysis of the passenger carrying equipment presently available—as shown in the accompanying table—indicates a critical spot where they may be woefully weak.

It is a primary military concept, well proved by actual experience, that the railroads are the most important means of intercity transport. They alone are best suited for mass movements of people and materials over long distances or short with a minimum of time and effort. Such movements can be organized and performed by other means of transport, but experience has taught it is at a great price in precious materials and labor. So it is to the railroads that the military must look for the fast, efficient and economical mass transportation so essential to a successful war effort.

Now the question arises: What should be done about this situation?

There appear to be at least two courses of action. But first, let's pause and look at the circumstances which lie at the root of the railroad's dwindling fleet of passenger cars and locomotives.

The railroads have been reducing their ownership of passenger-carrying equipment for the simple reason they have been losing much of their civilian passenger traffic and, in recent months, even a sizable portion of the military traffic. Declining traffic and mounting expenses in recent years have produced passenger service deficits in excess of $600 million a year. Though there have been many suggestions as to how the railroads should cope with this problem, the fact remains that if they are unable to improve the financial aspects of their passenger operations, they can hardly be expected to voluntarily increase their ownership in passenger-carrying equipment.

Turning to Other Fields

Developments in recent months have added a new note of apprehension: The construction shops of the major commercial car builders are rapidly being converted to other forms of industrial production because they have lost most of their railroad business, and see little hopeful prospect for the future. In view of the erratic and dwindling flow of car orders, we might reasonably expect a further diminution of car building capacity. This means that unless positive steps are taken by the railroads themselves, by the government, or by some outside group (such as, for example, one interested in building and leasing cars), we quite probably will find ourselves in the position of not being able to produce the cars we need without a large loss of time, if at all.

In view of the need which the armed services would have for proper railroad transportation in times of crises, it is also alarming to discover that they do not have on hand—or even on paper—a single modern passenger car (other than hospital and kitchen cars) which would fill present-day military needs and could serve as a prototype if they were called upon to acquire cars quickly in times of need.

There are some immediate starts that can be made in the direction of solving the problem. For one thing, the armed forces could and should design and order a few prototype coach and sleeping cars. These should be placed in actual operation to prove their practicability and otherwise tested so that they would be acceptable for rapid duplication in the event of need. This would only be a partial step in the right direction, however, because such cars could not be duplicated quickly unless their design is decided upon with great finality and adequate raw and fabricated materials, machine tools, etc., needed for their construction set aside.

An alternative would be to build and stockpile complete cars against the day of need. The railroads themselves cannot afford to do this. And, speaking realistically,

it is doubtful that the government in its present economy frame of mind would be disposed to undertake such a program.

Should Government Step In?

An entirely different approach is for the government to encourage individual railroads to replace much of their existing, obsolete rolling stock for passenger trains. Such encouragement has been provided in the form of the Office of Defense Mobilization announcement that fast amortization certificates will be issued for up to 1,250 cars if ordered by July 1, 1955. I would encourage that all railroad passenger-carrying equipment so replaced, or made otherwise eligible for retirement, be offered to the government for "stockpiling" or "mothballing"—call it what you will—under terms that would allow the railroads to recover not more than minimum market value, or scrap value spread over a period of time.*

I believe such a realistic program will encourage the railroads to place orders for at least 1,000 passenger-train cars of various kinds. If the orders for that many cars could be placed over the next two years in production lines that would otherwise be dismantled, the program would have the beneficial effect of helping to save the private car building industry from disaster or keep some facilities and trained labor available for future use.

This proposal would have the dual advantage of providing the railroads with larger quantities of modern equipment and thereby improve the attractiveness of their service to the general public. This, together with parallel schedule and service improvements, should help the industry improve the financial results of its passenger operations.

We have all been blind to both the peacetime and wartime aspects of this situation for the past four or five years. It is time that we removed our blinders and opened our eyes to the advantages that could flow from forthright action.

* The Pullman Company is negotiating with the government to effect such a "mothball" arrangement for 650 heavy weight sleepers.

THESE ARE THE FACTS

	As of Dec. 31 1941	As of Dec. 31 1952	Per Cent Change
TOTAL NUMBER OF CARS OWNED			
All passenger-carrying cars	27,758	23,482	—15.4
Coach & combination coach	20,329	16,846	—17.1
Sleeping cars, all types	6,625	6,137	— 7.4
TOTAL CARRYING CAPACITY			
All passenger-carrying cars	1,658,352	1,353,448	—18.4
Coach & combination coach	1,337,847	1,062,911	—20.6
Sleeping cars (berths)	166,524	147,730	—11.3

The age of present equipment is also an important consideration. 42.7 per cent of the coach and combination coaches and over 27 per cent of the sleeping cars now in use are over 30 years old. As these cars grow older, their efficiency decreases rapidly—and the material and labor needed for upkeep increases.

Benchmarks and Yardsticks

ALMOST EVERY SPECIALIST (and who of us isn't one, more or less?) tends to know a lot about one kind of activity; and is constantly tempted to forget that this one activity, in itself, is insignificant. The science editor of the New York Times, Waldemar Kaempffert, in a recent article, writes that the atomic scientist, J. Robert Oppenheimer, was so engrossed in his work that he did not know about the 1929 stock market crash until long after it happened. For a long period, he never read a newspaper.

Kaempffert tells of Pavlov, the Russian biologist, who was so intensely attentive to his work that he did not know the Bolshevik revolution was going on around him until an assistant came late to his job and explained his delay by advising that the revolutionaries had stopped the streetcars. While such instances are obviously extreme, they indicate a weakness of specialization to which other specialists than scientists are not immune.

One difficulty which arises from the kind of concentration that specialization induces is the tendency of specialists who are brilliant in their own area to assume the right to pontificate in other fields in which they have little background. Thus, Henry Ford Sr. at one time aspired to leadership in the field of international relations. Albert Einstein, the physicist, seems to be revered by many people, including possibly himself, as an authority also on international relations.

The recent altercation between the Army and Senator McCarthy has afforded a strong temptation for non-specialists in the subject matter to form positive opinions, pro or con, in the premises. Your reporter ventures the opinion that, where honest and able people who know the ground thoroughly are unable to agree, the area is one in which non-specialists would do well to be slow in reaching positive conclusions.

What the non-specialist can do in such circumstances is to examine the evidence bearing on the comparative veracity of the experts who are being heard. If a specialist in an area of controversy is detected uttering nonsense about a question wherein the audience is competent to judge, then it is not unreasonable for the audience to assume that the specialist is equally unreliable in matters wherein the audience is not informed. This is also a pretty safe rule to follow in choosing among candidates for public office.

The layman must rely upon expert judgment, rather than his own, in areas where he is not a specialist. Where the experts disagree, then the layman can choose among them in accordance with the degree of dependability they have shown on subjects which the layman knows something about.

J. G. L.

Six different vending machines are installed in this PRR "automatic buffet-bar car."

The Santa Fe is experimenting with the use of vending machines in place of a diner on its "El Pasoan."

What Can Vending Machines Do?

The past year has seen numerous railroad experiments with different types of coin-operated vending machines aimed at determining their potential value (1) for increasing "impulse sales" and incidental revenues in stations, (2) as a supplement to dining and restaurant cars on trains, and (3) as a replacement for meal service on lightly patronized trains. Coin-operated baggage lockers of course have proved so successful they have taken over most of the short-term checking formerly handled in parcel rooms.

Vending machines of all kinds—stocked with sandwiches, hot and cold drinks, candy, stamps, newspapers and magazines—have proved economical and successful in and around stations. Experience has taught that machines must be chosen to suit the location. Thus sandwich, hot and cold beverage and other machines involving large capital investment, special installation and frequent inspection and servicing do best where there is heavy traffic and where space or other considerations make it impossible or inadvisable to establish a manually operated counter. Candy machines have proved most successful where a candy stand is either impractical or too expensive to operate.

The Pennsylvania, Lehigh Valley, Rock Island, and Santa Fe have experimented with the use of food, beverage and candy vending machines on trains—with mixed success. Machines are available which deliver good mechanical performance under the vibration of normal railroad operation. Likewise the machines can be completely sealed to prevent vermin infestation. A problem, however, has been the matter of supplying the machines, accounting for the receipts, and preventing pilferage and damage to the machines in coach yards at the ends of runs.

In general, on-train vending machines have been economically most successful when kept in constant service on high-density runs. They produce greatest revenue when subjected to a steady, constantly changing flow of passengers. They have been used successfully to supplement dining cars on meal-hour trains and in place of diners on non-meal-hour trains. However, they have not been too successful when used to supplement diners or half-diners on lightly patronized trains. The Pennsylvania has had little success with its vending machines when used in place of a diner on meal-hour trains. On the other hand, the Santa Fe is experimenting with an entirely different type of set-up for partial meal-hour service.

In years past there has been some experimentation with coin-operated ticket vending machines. Generally these have not proved entirely satisfactory. But it is possible new developments will revive interest in this type of machine.

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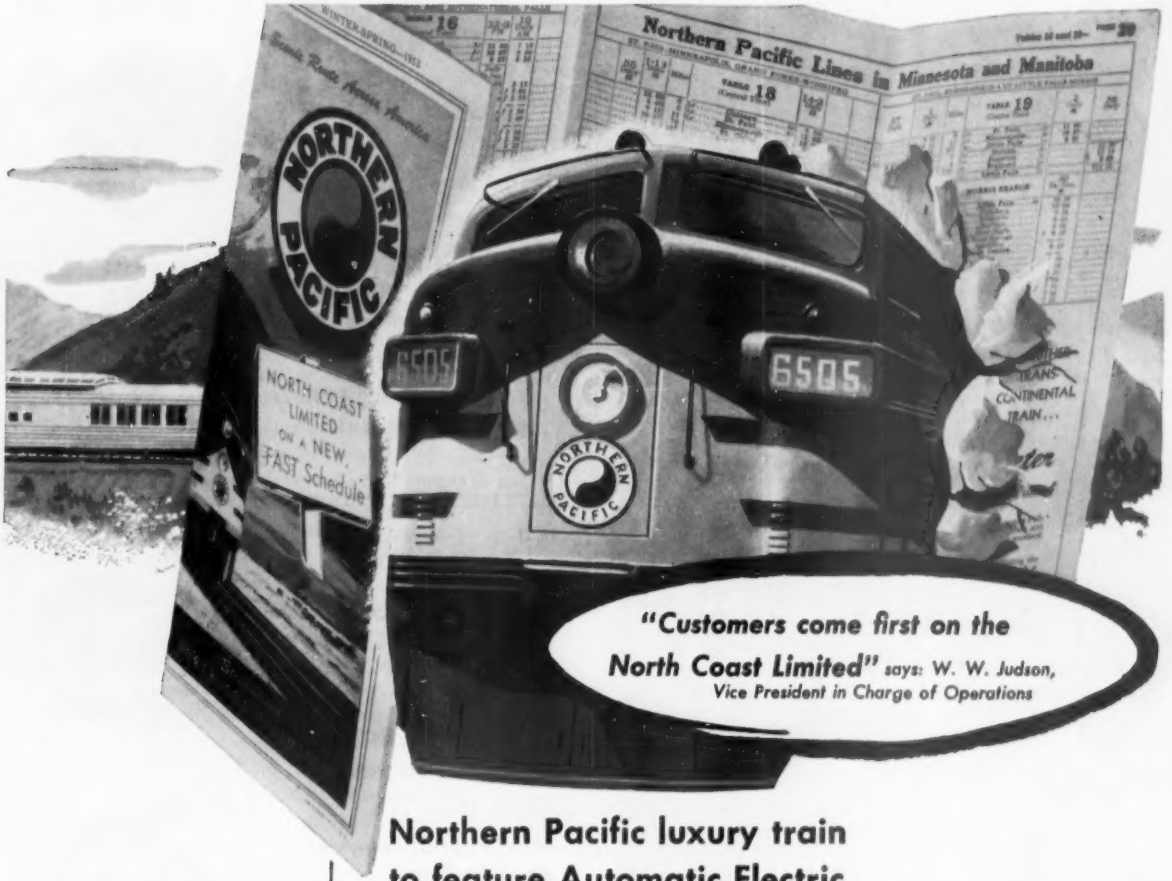

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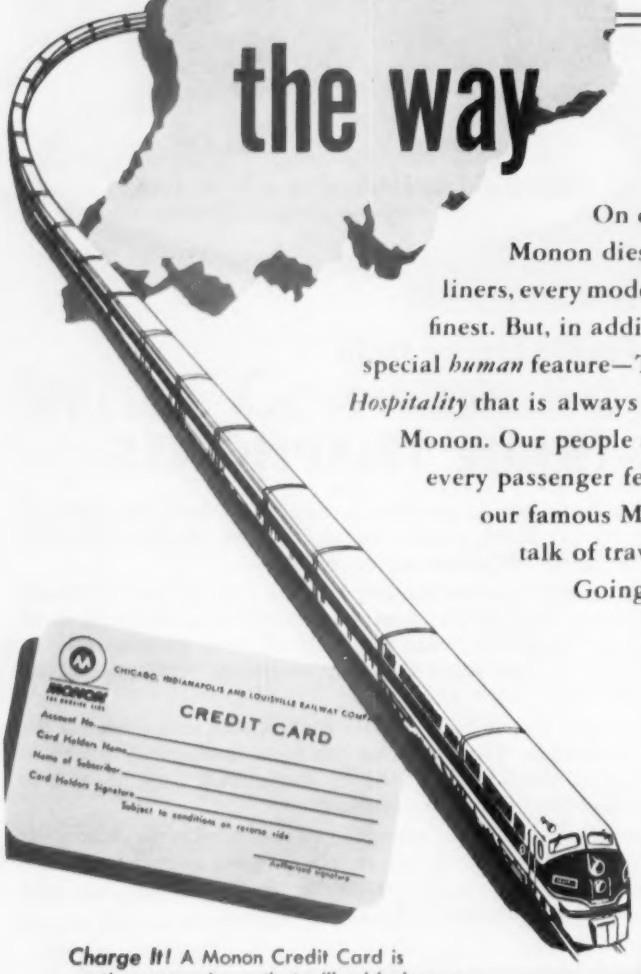

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By KINSEY N. MERRITT
Vice President—Traffic
Railway Express Agency

By advanced planning and determined efforts to maintain its leading position in the field of fast package transportation, Railway Express Agency is forging ahead to new goals. Relieved to some extent from direct government competition when new parcel post weight and size regulations went into effect January 1, 1952, the progressive measures the agency instituted to streamline its operations and management immediately started to produce good results.

Increased business, refinements in operating practices brought about by extensive engineering improvements, and advanced methods of employee training have enabled REA to make higher payments to the railroads which own it. Operations for 1952 produced a $50 million improvement in express privilege payments over 1951. In 1953, although there was a decline of 1.2 per cent in total revenues and income from the previous year, operating expenses and other deductions were reduced 2.4 per cent, permitting an increase of 1 per cent in payments to the carriers for the intercity transportation of express.

Volume Rates Instituted

From information derived by its rate and market specialists the company has been able to propose realistic approaches to sources of more business which are proving beneficial to shippers and consignees as well as the company. One example is the adoption of volume rates for mixed shipments between specified points of origin and delivery. Under this tariff, for example, traffic composed of a wide variety of dry goods items in lots of 5,000 to 20,000 lb. is being moved at rate reductions of 45 per cent to 60 per cent of first class rates depending on volume. Shippers have specified "split lot" delivery privileges. This permits a number of shippers and consignees to pool their traffic at low rates with no reduction in express transportation speed.

Since early March the spring sales program has been in full swing, stimulating a high degree of sales awareness among all REA personnel who come in contact with the public. Naturally this includes the sales force but it also extends to vehicle drivers, agents, counter clerks, and all who speak with the public on business matters over the telephone.

Emphasis is being placed on the flexibility of express service which can be adapted readily to the needs of the growing new industries, such as color television, electronics and distribution of the latest products of the atomic age now being made available to the public. Advertising, promotion, community and public relations are integrated with the overall program to keep the public informed.

REA SALES EFFORTS have been extended to include vehicle drivers, agents, counter clerks, and all "public contact" employees.

EXTENSIVE ENGINEERING IMPROVEMENTS, bringing about better operating practices, help the agency make higher payments to the railroads.

At this writing the management believes that the bearish opinions on business prospects voiced by some commentators in the first quarter were due to a normal reduction of inventories which was to be expected in the readjustment of our national economy. Those adverse opinions received more and bigger headlines because they came under the classification of bad news, which is always to be expected.

Actually, close studies of production, employment, the sensitive retail store field and other business indexes reveal signs of a continued upturn. Some students of the economic picture have predicted rising business up to 1960.

With better-than-ever service, energetic salesmanship and the maintenance of favorable customer relations REA officers believe that their policies will carry the company forward to new and higher goals.

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands, i.e., with last three digits omitted)

MONTH OF MARCH AND THREE MONTHS OF CALENDAR YEAR 1954

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1954	Total (inc. misc.) 1953	Operating Expenses: Maint. Way and Structures: Total 1954	Total 1953	Deprec. and Retirements	Maint. Equipment: Total 1954	Total 1953	Deprec. and Retirements	Traffic	Transportation	Total 1954	Total 1953	Operating ratio 1954	Operating ratio 1953	Net from railway operation	Railway tax accruals	Net railway operating income 1954	Net railway operating income 1953
Akron, Canton & Youngstown	March	171	$433	....	$441	$557	$69	$76	$6	$66	$54	$15	$37	$142	$351	$353	79.6	63.5	$90	$43	$29	$86
	3 mos.	171	1,224	....	1,248	1,573	186	212	18	192	154	48	114	467	1,013	1,001	81.2	63.6	235	97	83	241
Atchison, Topeka & Santa Fe	March	13,067	39,413	$2,829	46,495	54,408	6,402	8,201	633	8,816	8,963	1,907	1,219	14,703	33,158	35,990	71.3	66.1	13,337	7,779	6,194	7,688
	3 mos.	13,069	107,053	9,415	128,901	152,235	18,727	21,420	1,927	26,509	25,852	5,689	3,463	42,809	97,494	102,424	75.6	67.3	31,407	17,917	13,649	20,938
Atlanta & St. Andrews Bay	March	82	312	1	318	344	26	34	3	23	22	4	5	67	142	157	44.6	45.6	176	82	58	53
	3 mos.	82	900	3	920	1,001	75	88	8	60	67	12	17	204	412	446	44.7	44.6	508	233	169	158
Atlanta & West Point	March	93	264	30	347	405	44	56	11	56	70	13	16	144	281	324	82.4	79.9	67	21	26	30
	3 mos.	93	735	98	980	1,147	140	150	22	180	209	39	47	425	857	944	88.0	82.3	123	62	10	65
Western of Alabama	March	133	336	29	407	428	50	67	7	65	70	17	18	141	294	312	72.4	72.7	112	56	51	56
	3 mos.	133	908	97	1,115	1,218	162	180	25	207	205	51	53	407	890	914	79.8	75.1	225	114	101	141
Atlantic & Danville	March	205	176	....	179	180	35	33	2	15	15	5	12	51	125	124	70.1	68.6	54	9	13	20
	3 mos.	205	450	....	456	506	85	93	6	38	45	14	37	137	333	363	72.9	71.7	122	28	17	42
Atlantic Coast Line	March	5,366	12,327	2,027	15,664	16,854	2,104	2,482	231	2,646	3,540	595	398	5,148	10,979	12,706	70.1	75.4	4,685	2,600	1,634	1,463
	3 mos.	5,366	33,279	6,196	43,166	47,001	5,803	7,273	528	7,740	10,105	1,771	1,186	15,007	31,715	36,725	73.5	78.1	11,451	6,175	3,919	3,197
Charleston & Western Carolina	March	343	597	2	614	606	154	154	14	103	105	43	19	172	462	463	75.2	76.4	152	65	76	77
	3 mos.	343	1,671	5	1,717	1,778	423	423	31	300	313	128	52	498	1,311	1,327	76.4	74.6	405	180	202	243
Baltimore & Ohio	March	6,183	27,382	1,416	31,113	37,727	3,574	4,908	423	6,188	8,271	1,026	859	13,372	25,652	30,094	82.5	79.8	5,462	1,809	2,665	3,791
	3 mos.	6,183	81,071	4,522	91,975	109,587	10,650	13,941	1,379	18,111	24,071	3,073	2,523	39,577	75,434	87,865	82.0	80.2	16,541	5,432	7,745	10,666
Staten Island Rapid Transit	March	29	199	52	253	303	50	75	11	31	36	2	1	132	244	305	96.4	100.6	9	39	—47	—63
	3 mos.	29	544	152	704	865	139	197	32	77	94	6	4	385	689	862	97.9	99.6	15	114	—157	—176
Bangor & Aroostook	March	602	1,722	29	1,798	1,610	325	325	16	241	282	76	23	384	1,043	1,071	58.0	66.5	755	330	370	284
	3 mos.	602	4,539	91	4,759	4,730	975	975	47	705	745	228	63	1,116	3,055	3,076	64.2	65.0	1,704	713	866	819
Bessemer & Lake Erie	March	209	1,207	....	1,219	1,855	201	213	20	762	668	142	24	397	1,479	1,421	121.3	76.6	—260	72	—232	531
	3 mos.	209	3,571	1	3,615	4,836	555	554	57	2,029	2,489	424	73	1,144	4,098	4,563	113.4	94.4	—484	200	—229	495
Boston & Maine	March	1,676	5,601	868	7,295	7,900	1,293	1,288	164	1,131	1,200	172	117	3,151	6,067	6,255	83.2	79.2	1,228	534	188	530
	3 mos.	1,676	15,437	2,666	20,372	22,528	3,787	3,911	492	3,316	3,478	518	349	9,322	17,789	18,494	87.3	82.1	2,584	1,512	—389	1,092
Cambria & Indiana	March	35	151	....	151	157	16	19	1	117	98	22	....	24	165	145	109.2	92.2	—14	58	72	83
	3 mos.	35	426	....	426	462	50	55	2	317	291	67	1	67	455	429	106.8	92.8	—29	193	233	228
Canadian Pacific Lines in Maine	March	234	729	41	796	990	76	103	5	165	183	17	8	298	563	638	70.7	64.4	233	29	151	270
	3 mos.	234	2,031	155	2,266	2,699	218	285	16	402	553	52	25	834	1,524	1,865	67.3	69.1	742	87	497	570
Canadian Pacific Lines in Vermont	March	90	171	15	209	214	40	73	4	30	34	....	6	141	228	239	109.1	111.9	—19	13	—95	—88
	3 mos.	90	529	42	641	669	119	158	13	93	109	1	21	375	636	657	99.2	98.2	5	38	—210	—179
Central of Georgia	March	1,786	3,117	154	3,577	4,050	519	707	44	538	606	138	140	1,362	2,774	3,156	77.6	77.9	803	217	494	382
	3 mos.	1,786	8,738	519	10,106	11,346	1,547	1,853	123	1,642	1,756	414	423	4,007	8,279	8,885	81.9	78.3	1,826	647	966	1,009
Central of New Jersey	March	613	4,023	443	4,848	5,485	679	787	91	909	1,124	169	78	2,084	3,997	4,478	82.4	81.6	852	469	269	350
	3 mos.	613	11,531	1,310	13,895	15,468	1,801	2,012	273	2,565	3,297	521	226	6,166	11,394	12,706	82.0	82.1	2,501	1,374	842	856
Central Vermont	March	422	744	49	865	944	195	182	16	111	143	11	17	365	735	759	85.0	80.4	130	40	2	71
	3 mos.	422	2,322	182	2,708	2,756	499	480	49	342	451	32	47	1,131	2,147	2,220	79.3	80.5	561	122	155	151
Chesapeake & Ohio	March	5,102	22,264	519	24,024	28,066	3,394	4,240	386	5,410	5,651	1,516	724	8,573	19,456	21,297	81.0	75.9	4,568	1,614	3,235	3,971
	3 mos.	5,102	65,727	1,647	70,420	80,757	10,318	11,661	1,113	15,679	16,349	4,543	2,131	25,044	57,006	60,150	81.0	74.5	13,414	5,127	9,882	12,289
Chicago & Eastern Illinois	March	868	2,332	153	2,786	3,154	369	424	30	481	511	130	127	1,052	2,201	2,314	79.0	73.4	585	174	304	410
	3 mos.	868	6,718	601	8,162	8,967	1,050	1,139	84	1,443	1,502	391	385	3,149	6,560	6,799	80.4	75.8	1,602	471	842	1,064
Chicago & Illinois Midland	March	130	732	....	745	835	70	81	7	161	162	23	32	217	529	583	71.0	69.8	216	41	133	93
	3 mos.	130	1,670	....	1,713	2,000	215	248	22	469	458	70	105	612	1,538	1,596	89.8	79.8	175	115	—18	133
Chicago & North Western	March	7,876	11,896	1,604	15,240	16,346	2,537	3,037	361	2,967	3,190	819	375	7,371	14,109	15,338	92.6	93.8	1,132	1,030	—573	—444
	3 mos.	7,876	33,073	5,012	42,948	47,044	6,910	7,327	993	8,163	9,379	2,441	1,113	21,308	40,025	42,685	93.2	90.7	2,924	3,062	—2,115	—15
Chicago, Burlington & Quincy	March	8,867	18,789	1,296	22,487	23,800	2,194	2,799	367	3,569	3,367	791	478	7,981	15,069	15,806	67.0	66.4	7,417	3,852	3,335	3,354
	3 mos.	8,867	51,755	4,064	62,790	66,879	6,646	7,982	1,104	10,708	9,759	2,369	1,486	23,154	44,406	45,753	70.7	68.4	18,384	9,353	8,091	8,667
Chicago Great Western	March	1,470	2,639	5	2,800	1,929	377	426	45	431	241	207	110	876	1,879	1,460	67.1	75.7	922	361	387	394
	3 mos.	1,470	7,509	21	8,010	4,614	1,128	831	133	1,259	703	448	338	2,562	5,518	3,593	68.9	77.9	2,492	877	986	568
Chicago, Indianapolis & Louisville	March	541	1,667	56	1,855	2,041	267	347	20	243	290	70	92	662	1,369	1,508	73.8	73.9	485	187	212	220
	3 mos.	541	4,629	177	5,177	5,490	779	1,013	66	738	787	209	264	1,857	3,934	4,211	76.0	76.7	1,243	457	541	535
Chicago, Milw., St. Paul & Pacific	March	10,639	17,334	978	20,314	21,958	2,900	2,763	402	4,448	4,712	891	485	8,135	16,988	17,901	83.6	81.5	3,326	1,305	1,271	1,412
	3 mos.	10,639	46,888	3,067	55,590	62,962	7,957	7,740	1,225	12,764	13,298	2,646	1,366	23,819	48,847	51,004	87.9	81.0	6,743	3,896	867	4,162
Chicago, Rock Island & Pacific	March	7,886	13,502	1,296	16,420	19,117	2,036	2,180	262	2,798	2,945	566	492	5,919	12,090	12,848	73.6	67.2	4,330	1,872	1,635	2,657
	3 mos.	7,887	37,246	4,042	45,746	53,540	5,457	5,663	750	8,005	8,099	1,694	1,469	17,493	34,890	36,075	76.3	67.4	10,855	4,529	4,151	7,502
Chic., St. Paul, Minn. & Omaha	March	1,616	2,309	135	2,657	2,730	430	491	45	462	467	91	67	1,319	2,409	2,694	90.7	98.7	247	170	—222	—401
	3 mos.	1,616	6,615	423	7,646	8,108	1,150	1,189	141	1,261	1,269	276	192	3,966	6,947	7,416	90.9	91.5	658	501	—650	—557
Clinchfield	March	317	1,711	....	1,721	2,051	303	368	19	382	389	168	48	414	1,187	1,279	69.0	62.4	534	241	312	651
	3 mos.	317	5,174	2	5,202	6,247	891	1,037	58	1,132	1,093	504	143	1,188	3,484	3,620	67.0	57.9	1,718	721	1,073	2,273

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF MARCH AND THREE MONTHS OF CALENDAR YEAR 1954

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Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1954	Total (inc. misc.) 1953	Operating Expenses: Maint. Way and Structures: Total 1954	Total 1953	Deprec. and Retirements	Maint. Equipment: Total 1954	Total 1953	Deprec. and Retirements	Traffic	Transportation	Total 1954	Total 1953	Operating ratio 1954	Operating ratio 1953	Net from railway operation	Railway tax accruals	Net railway operating income 1954	Net railway operating income 1953
Colorado & Southern	March	729	916	54	1,126	1,462	146	155	12	243	207	42	33	439	920	917	81.7	62.7	206	90	89	227
	3 mos.	729	2,656	173	3,211	3,904	387	394	64	657	565	123	93	1,289	2,594	2,586	80.8	66.2	617	262	254	551
Ft. Worth & Denver	March	1,038	1,552	102	1,856	2,054	280	321	32	276	274	44	55	623	1,332	1,400	71.8	68.2	524	156	256	291
	3 mos.	1,038	4,650	327	5,456	6,122	958	859	132	722	840	128	173	1,867	4,000	4,206	73.3	68.7	1,456	422	686	838
Colorado & Wyoming	March	40	63	....	139	307	10	20	2	28	34	11	1	74	124	179	88.9	58.3	15	3	9	59
	3 mos.	40	336	....	598	922	35	53	6	82	98	34	4	265	419	518	70.0	56.2	179	82	91	167
Columbus & Greenville	March	168	191	....	200	189	27	36	4	24	26	6	4	48	123	131	61.8	69.2	76	46	27	23
	3 mos.	168	481	....	567	538	86	97	11	86	76	19	13	140	383	379	75.6	70.4	124	78	40	68
Delaware & Hudson	March	793	4,168	141	4,489	4,766	596	744	46	842	828	181	92	1,590	3,335	3,594	74.3	75.4	1,154	284	807	760
	3 mos.	793	11,328	475	12,257	13,490	1,735	2,025	150	2,552	2,447	543	264	4,732	9,920	10,200	80.9	75.6	2,336	856	1,356	2,219
Delaware, Lackawanna & Western	March	962	5,075	739	6,490	7,602	823	782	139	1,202	1,429	320	181	3,127	5,636	6,140	86.8	80.8	855	393	378	755
	3 mos.	962	15,212	2,306	19,517	21,841	2,339	2,345	413	3,511	3,874	960	532	9,134	16,384	17,231	83.9	78.9	3,133	1,409	1,494	2,300
Denver & Rio Grande Western	March	2,164	5,547	189	5,970	7,272	840	804	112	947	1,275	288	192	1,717	4,002	4,732	67.0	65.1	1,968	820	1,166	1,130
	3 mos.	2,166	15,893	597	17,147	20,584	1,856	1,875	321	2,878	3,432	854	573	5,204	11,360	12,826	66.3	62.3	5,787	2,818	3,150	3,421
Detroit & Mackinac	March	232	160	....	164	170	40	42	3	22	23	9	5	36	116	122	71.0	71.8	48	30	25	27
	3 mos.	232	437	3	450	492	120	125	8	64	66	28	15	104	335	331	74.5	67.3	115	73	65	88
Detroit & Toledo Shore Line	March	50	680	....	723	830	77	79	3	57	64	18	18	204	370	409	51.2	49.3	353	124	103	144
	3 mos.	50	1,994	....	2,148	2,404	242	240	9	179	190	53	52	590	1,104	1,152	51.4	47.9	1,044	366	305	416
Detroit, Toledo & Ironton	March	464	1,632	....	1,694	2,067	280	250	22	265	237	98	37	493	1,147	1,517	67.7	73.4	547	200	288	241
	3 mos.	464	5,017	1	5,222	6,053	753	681	62	814	700	288	105	1,486	3,368	4,352	64.5	71.8	1,853	738	930	693
Duluth, Missabe & Iron Range	March	566	422	....	462	1,234	465	553	45	887	847	111	9	596	2,053	2,365	446.1	191.7	—1,600	104	—1,690	—1,161
	3 mos.	568	991	1	1,124	2,205	1,584	1,517	183	2,534	2,360	333	32	1,800	6,262	6,351	557.0	288.0	—5,138	302	—5,467	—4,427
Duluth, South Shore & Atlantic	March	553	598	4	638	784	109	120	10	136	182	23	29	198	495	584	77.7	74.5	142	26	84	100
	3 mos.	553	1,581	15	1,679	2,056	345	390	32	408	483	70	84	588	1,494	1,678	89.0	81.6	185	77	65	159
Duluth, Winnipeg & Pacific	March	175	432	1	441	529	76	69	4	76	69	2	6	220	385	355	87.4	67.2	55	35	—72	67
	3 mos.	175	1,323	2	1,345	1,357	195	198	13	207	211	6	17	658	1,098	1,052	81.6	77.5	247	105	—121	—2
Elgin, Joliet & Eastern	March	236	3,348	....	4,071	4,966	266	258	26	2,720	995	115	35	1,484	4,686	3,297	115.1	66.4	—616	223	—1,057	445
	3 mos.	236	9,479	....	11,604	14,203	879	788	73	7,951	2,779	344	104	4,514	13,969	9,262	120.4	65.2	—2,365	669	—3,940	1,236
Erie	March	2,224	11,585	506	13,170	15,738	1,713	1,820	235	2,182	2,277	504	366	5,514	10,459	11,505	79.4	73.1	2,711	865	1,150	1,817
	3 mos.	2,224	33,538	1,642	38,101	44,184	4,697	5,058	705	6,448	6,459	1,500	1,088	16,030	30,309	32,391	79.6	73.3	7,791	2,635	3,277	5,041
Florida East Coast	March	571	2,742	841	3,928	3,843	391	354	42	485	565	78	82	1,331	2,510	2,568	63.9	66.8	1,419	512	667	625
	3 mos.	571	6,944	2,505	10,356	10,937	1,087	1,095	130	1,469	1,642	234	229	3,679	7,104	7,305	68.6	66.8	3,253	1,037	1,545	1,781
Georgia Railroad	March	321	643	24	753	835	141	128	10	131	136	32	35	309	653	665	86.7	79.6	100	35	106	163
	3 mos.	321	1,818	67	2,084	2,377	389	372	27	410	404	97	104	910	1,922	1,958	92.2	82.4	162	105	153	374
Georgia & Florida	March	332	319	....	323	372	96	105	3	39	37	8	20	88	262	279	81.1	75.0	61	18	15	38
	3 mos.	341	873	....	884	1,007	275	292	10	117	117	21	60	259	762	804	86.2	79.8	122	54	—13	55
Grand Trunk Western	March	952	4,417	202	5,001	5,724	674	666	50	905	929	89	78	2,272	4,115	4,165	82.3	72.8	886	322	190	966
	3 mos.	952	12,924	589	14,542	15,582	1,927	1,920	153	2,619	2,651	268	222	6,556	11,868	11,985	81.6	76.9	2,674	963	804	1,874
Can. Natl. Lines in New Engl.	March	172	143	3	171	221	61	90	9	32	57	....	3	132	238	327	139.1	148.2	—67	25	—147	—183
	3 mos.	172	458	12	524	795	162	212	28	114	167	....	8	413	749	884	142.9	111.1	—225	75	—464	—317
Great Northern	March	8,305	17,581	687	19,780	19,234	3,283	3,814	323	3,892	3,839	741	398	6,665	15,069	15,786	76.2	82.1	4,711	1,509	2,630	1,366
	3 mos.	8,305	44,569	2,248	50,396	52,052	8,763	10,043	974	11,691	11,217	2,209	1,241	19,914	44,049	44,609	87.4	85.7	6,346	4,511	308	1,699
Green Bay & Western	March	224	376	....	382	390	64	70	4	43	40	8	21	106	253	243	66.2	62.2	129	54	51	53
	3 mos.	224	1,064	....	1,080	1,078	185	188	12	130	110	23	67	310	745	676	70.5	62.7	335	150	118	144
Gulf, Mobile & Ohio	March	2,766	6,723	305	7,511	8,473	1,011	1,234	72	1,467	1,381	278	289	2,149	5,293	5,532	70.5	65.3	2,218	932	940	1,226
	3 mos.	2,766	18,651	998	21,096	23,679	2,827	3,354	210	4,141	4,079	827	856	6,464	15,356	16,018	72.8	67.7	5,740	2,350	2,301	3,052
Illinois Central	March	6,537	19,533	1,606	23,688	26,358	3,784	4,098	347	4,514	4,390	706	525	9,092	19,020	19,937	80.3	75.6	4,668	2,584	1,552	2,339
	3 mos.	6,537	56,227	5,387	68,824	75,057	10,532	11,297	1,094	12,942	12,885	2,119	1,580	25,856	54,082	56,224	78.6	74.9	14,742	8,171	5,183	6,861
Illinois Terminal	March	355	800	56	940	1,038	151	162	24	155	190	42	46	370	797	843	84.9	81.3	142	68	55	102
	3 mos.	355	2,211	168	2,622	2,879	422	457	77	495	522	126	138	1,087	2,334	2,405	89.0	83.6	288	146	108	216
Kansas City Southern	March	891	3,214	107	3,730	4,196	449	434	35	404	630	89	98	1,083	2,167	2,465	58.1	58.7	1,563	731	663	736
	3 mos.	891	9,144	357	10,551	12,771	1,147	1,351	105	1,182	1,582	267	295	3,173	6,179	7,086	58.6	55.5	4,372	1,951	1,819	2,246
Kansas, Oklahoma & Gulf	March	327	463	....	464	641	68	101	7	45	40	11	28	120	283	330	61.0	51.6	181	80	70	126
	3 mos.	327	1,381	1	1,389	1,807	180	233	23	121	99	34	85	350	801	872	57.6	48.3	588	261	233	382
Lake Superior & Ishpeming	March	156	40	....	45	58	54	49	13	73	66	16	2	43	184	177	406.7	306.5	—139	29	—148	—142
	3 mos.	156	118	....	130	175	158	141	40	207	188	48	6	126	524	510	401.8	292.4	—394	89	—431	—386
Lehigh & Hudson River	March	96	283	....	284	288	40	41	2	32	29	8	14	94	191	181	67.3	62.9	93	34	31	39
	3 mos.	96	810	....	812	814	112	116	7	95	87	25	40	271	552	534	68.0	65.6	260	92	81	99
Lehigh & New England	March	180	590	....	596	489	74	69	7	154	129	40	13	198	476	420	79.9	85.9	120	89	104	81
	3 mos.	180	1,633	....	1,647	1,673	225	264	19	440	401	119	38	578	1,406	1,373	85.4	82.1	240	176	244	268
Lehigh Valley	March	1,163	4,999	247	5,615	6,358	760	787	96	898	1,154	208	137	2,365	4,418	4,931	78.7	77.6	1,197	407	668	791
	3 mos.	1,163	13,917	856	15,784	18,165	2,272	2,241	277	2,723	3,209	619	417	7,053	13,225	13,879	83.8	76.4	2,559	1,241	902	2,309
Long Island	March	360	1,221	3,017	4,499	4,527	665	696	87	915	925	125	13	2,425	4,188	4,177	93.1	92.3	311	273	—234	—383
	3 mos.	360	3,056	8,834	12,579	12,920	1,960	1,914	260	2,754	2,641	375	42	7,113	12,386	11,962	98.5	92.6	194	1,074	—1,748	—1,302

(Table continued on page 1311)

the King and Us...

Long live *this* king! May his line multiply and prosper for generations to come!

Yes, in modern railroading the passenger reigns supreme . . . and real passenger progress depends on his pleasure.

This modern-day king travels more . . . and better . . . than did the kings of old. But he is very much akin to regular kings . . . he's mighty choosy . . . and he's mighty important!

As his servants we are subject to his slightest whim. If he finds our "carriage" not to his liking, it's his royal prerogative to step into his 7-League Boots . . . or he may choose to travel in his personal chariot, even though he has to be his own chauffeur.

The Texas and Pacific Railway offers advantages that can't be matched by any other means of transportation . . . and if we can please His Royal Highness enough to make railway travel his first choice, there's no limit to our passenger progress.

TEXAS AND PACIFIC RAILWAY COMPANY

GO T&P

REVENUES AND EXPENSES OF RAILWAYS

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(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF MARCH AND THREE MONTHS OF CALENDAR YEAR 1954

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1954	Total (inc. misc.) 1953	Operating Expenses: Maint. Way and Structures: Total 1954	Total 1953	Deprec. and Retirements	Maint. Equipment: Total 1954	Total 1953	Deprec. and Retirements	Traffic	Transportation	Total 1954	Total 1953	Operating ratio 1954	Operating ratio 1953	Net from railway operation	Railway tax accruals	Net railway operating income 1954	Net railway operating income 1953
Louisiana & Arkansas	March	752	2,106	60	2,255	2,697	325	396	22	290	287	88	75	599	1,369	1,507	60.7	55.9	886	365	457	535
	3 mos.	752	6,113	185	6,549	7,212	916	1,068	60	839	809	265	242	1,772	4,007	4,179	61.2	57.9	2,542	1,032	1,320	1,411
Louisville & Nashville	March	4,732	15,268	869	17,502	21,037	3,122	2,832	233	4,086	3,803	940	349	6,099	14,337	14,176	81.9	67.4	3,165	1,676	2,038	3,434
	3 mos.	4,733	44,596	2,697	51,074	58,637	8,621	7,909	674	11,386	11,255	2,785	1,024	18,228	41,203	41,454	80.7	70.7	9,871	5,308	6,366	8,623
Maine Central	March	944	2,300	93	2,560	2,432	430	482	29	421	383	77	19	802	1,764	1,774	68.9	72.9	797	322	305	265
	3 mos.	944	6,054	291	6,778	6,983	1,220	1,349	84	1,202	1,081	227	58	2,312	5,067	5,091	74.8	72.9	1,711	714	644	763
Midland Valley	March	334	190	....	193	204	45	50	6	10	15	4	6	53	122	139	63.0	68.3	71	49	11	33
	3 mos.	334	504	....	513	529	112	129	16	39	42	11	17	153	350	386	68.2	73.0	163	101	30	59
Minneapolis & St. Louis	March	1,397	1,855	4	1,936	1,907	266	284	27	275	268	77	105	591	1,353	1,376	69.9	72.1	583	267	275	215
	3 mos.	1,397	4,753	11	4,955	5,257	758	853	83	800	771	230	350	1,733	3,981	4,067	80.3	77.4	974	467	495	481
Minn., St. Paul & Sault Ste. Marie	March	3,222	2,644	51	2,904	2,908	586	534	57	676	678	102	77	1,204	2,674	2,671	92.1	91.9	230	181	68	54
	3 mos.	2,222	6,826	170	7,505	8,050	1,677	1,742	151	1,983	1,999	302	235	3,552	7,839	8,042	104.5	99.9	—334	570*	—848	—612
Mississippi Central	March	148	225	....	228	290	66	63	2	28	28	6	15	53	172	188	75.4	64.9	56	19	27	36
	3 mos.	148	620	....	631	724	188	146	7	80	82	18	42	156	499	504	79.2	69.5	132	44	58	79
Missouri-Illinois	March	172	491	....	495	497	78	112	4	81	83	25	9	131	311	347	62.7	69.8	184	97	83	71
	3 mos.	172	1,155	1	1,166	1,434	223	245	11	253	228	74	29	329	867	910	74.4	63.5	299	157	159	238
Missouri-Kansas-Texas Lines	March	3,242	5,545	271	6,445	7,727	935	1,076	126	898	1,188	238	236	2,418	4,803	5,507	74.5	71.3	1,641	634	643	879
	3 mos.	3,242	15,567	813	18,101	21,703	2,759	3,020	315	2,810	3,287	715	734	7,132	14,338	15,433	79.2	71.1	3,763	1,229	1,424	2,482
Missouri Pacific	March	6,922	16,229	731	18,750	20,851	3,286	3,918	270	3,450	4,106	788	493	6,908	14,808	16,944	79.0	81.3	3,941	1,085	2,074	2,092
	3 mos.	6,922	45,457	2,392	52,965	59,531	9,081	10,867	787	9,941	11,660	2,352	1,439	20,517	42,932	47,730	81.1	80.2	10,033	3,191	4,498	6,278
International-Great Northern	March	1,103	2,449	123	2,822	3,513	550	739	36	470	556	116	59	1,208	2,411	2,721	85.4	77.5	411	112	245	401
	3 mos.	1,103	6,834	403	7,900	9,839	1,453	2,123	105	1,395	1,645	347	182	3,360	6,752	7,937	85.5	80.7	1,148	328	687	961
Gulf Coast Lines	March	1,723	3,428	73	3,737	4,157	742	887	51	521	556	108	93	1,172	2,687	2,963	71.9	71.2	1,050	301	537	522
	3 mos.	1,723	9,759	218	10,635	11,665	2,068	2,563	140	1,560	1,572	326	274	3,454	7,793	8,401	73.2	72.0	2,841	684	1,425	1,445
Monongahela	March	177	446	....	450	594	64	79	16	56	73	13	1	169	296	415	65.8	69.9	154	26	1	12
	3 mos.	177	1,350	....	1,360	1,684	183	240	47	171	220	38	2	513	890	1,182	65.5	70.2	470	81	36	13
Montour	March	51	124	....	139	184	16	23	2	64	81	19	1	54	144	180	103.6	97.5	—5	36	44	36
	3 mos.	51	435	....	464	577	53	66	7	190	228	56	3	171	448	531	96.5	92.0	16	137	149	136
Nashville, Chatt.' & St. Louis	March	1,032	2,967	124	3,433	3,870	511	538	43	441	546	137	119	1,180	2,361	2,534	68.8	65.5	1,073	499	519	617
	1,032	7,913	395	9,283	10,347	1,452	1,432	129	129	1,235	1,503	412	342	3,366	6,760	7,164	72.8	69.2	2,523	1,156	1,202	1,553
New York Central	March	10,713	46,682	7,893	62,352	72,515	8,097	10,063	975	12,380	15,141	2,386	1,097	27,224	52,060	61,522	83.5	84.8	10,291	4,619	3,933	4,606
	3 mos.	10,713	128,773	25,481	177,484	203,782	22,300	27,603	3,043	37,988	41,772	7,197	3,269	81,182	154,437	171,911	87.0	84.4	23,047	13,662	4,071	12,784
Pittsburgh & Lake Erie	March	221	2,817	66	3,077	4,467	472	546	40	1,094	1,111	293	74	1,112	2,986	3,522	97.0	78.9	91	288	800	1,088
	3 mos.	221	8,339	209	9,074	12,583	1,215	1,482	123	3,083	3,240	867	228	3,377	8,577	9,960	94.5	79.2	497	903	2,312	3,134
New York, Chicago & St. Louis	March	2,185	11,217	132	11,683	14,385	1,401	1,674	143	1,997	2,235	343	320	4,427	8,594	9,628	73.6	66.9	3,089	1,543	1,234	1,968
	3 mos.	2,185	33,184	429	34,573	41,327	3,979	5,025	422	5,895	6,602	1,030	939	12,777	24,900	28,043	72.0	67.9	9,673	4,738	3,927	5,446
New York, New Haven & Hartford	March	1,770	7,469	3,944	12,995	14,204	2,032	2,489	263	2,011	2,077	396	177	5,784	10,764	11,435	82.8	80.5	2,231	880	322	840
	3 mos.	1,770	20,593	12,001	36,994	40,436	5,021	6,155	764	5,729	6,061	1,187	511	16,891	30,433	32,641	82.3	80.7	6,561	2,660	844	2,190
New York Connecting	March	21	308	....	341	402	76	69	25	2	28	....	....	66	148	191	43.3	47.4	193	110	66	124
	3 mos.	21	856	....	926	1,160	215	221	75	41	73	....	....	234	498	572	53.8	49.3	428	258	181	335
New York, Ontario & Western	March	541	488	....	501	619	118	107	18	89	92	23	23	267	529	512	105.5	82.7	—28	35	—130	7
	3 mos.	541	1,430	....	1,466	1,679	331	290	56	282	256	68	68	770	1,542	1,479	105.2	88.0	—76	114	—388	—88
New York, Susquehanna & Western	March	120	444	36	501	520	56	58	5	75	61	12	8	237	407	362	81.3	69.6	94	35	—7	94
	3 mos.	120	1,205	110	1,373	1,400	158	165	16	201	183	37	23	655	1,119	1,063	81.5	76.0	254	98	—4	126
Norfolk & Western	March	2,135	12,788	289	13,798	14,842	2,313	2,229	378	3,207	3,512	674	354	4,630	11,112	11,812	80.5	79.6	2,686	1,889	1,395	1,483
	3 mos.	2,135	36,645	1,012	39,567	44,078	6,722	6,737	963	9,768	10,390	2,001	963	13,826	33,148	34,683	83.8	78.7	6,419	4,963	3,462	4,452
Norfolk Southern	March	620	899	....	909	967	188	201	14	125	112	28	51	261	686	707	75.5	73.1	222	101	82	78
	3 mos.	620	2,397	....	2,431	2,708	512	637	39	329	378	83	150	765	1,927	2,243	79.3	82.8	504	231	161	108
Northern Pacific	March	6,866	12,406	408	13,887	15,094	2,123	2,374	265	2,949	2,953	459	324	5,728	11,860	12,276	85.4	81.3	2,026	1,228	1,197	1,453
	3 mos.	6,866	32,119	1,426	36,569	40,614	5,944	6,241	761	8,670	8,428	1,356	935	17,090	34,774	34,598	95.1	85.2	1,795	3,542	—792	2,936
Northwestern Pacific	March	331	1,065	2	1,095	1,111	370	350	17	92	120	4	5	364	852	923	77.8	83.1	244	55	5	—27
	3 mos.	331	2,775	5	2,856	3,012	1,037	1,008	63	264	322	12	15	1,012	2,390	2,651	83.7	88.0	466	165	—188	—230
Oklahoma City-Ada-Atoka	March	132	144	....	145	92	23	24	3	2	1	....	2	21	52	52	36.0	56.3	93	39	41	13
	3 mos.	132	395	....	397	231	56	68	8	6	3	....	6	63	143	147	36.0	63.9	254	104	108	17
Pennsylvania	March	10,051	52,219	10,015	70,134	88,109	9,149	11,449	1,389	15,102	20,632	2,982	1,262	32,141	60,541	75,060	86.3	85.2	9,592	5,064	2,229	6,228
	3 mos.	10,051	152,131	32,764	207,936	251,644	27,011	32,019	4,487	46,653	56,891	8,917	3,798	97,209	184,105	211,916	88.5	84.2	23,831	15,468	1,478	17,736
Pennsylvania-Reading Seashore Lines	March	358	623	91	730	721	183	230	24	101	106	22	11	479	810	960	111.0	133.2	—80	119	—333	—439
	3 mos.	358	1,664	296	2,007	2,077	598	644	73	310	289	65	30	1,441	2,493	2,727	124.2	131.3	—486	362	—1,273	—1,290

(Table continued on page 132)

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF MARCH AND THREE MONTHS OF CALENDAR YEAR 1954

Name of Road		Average mileage operated during period	Operating Revenues				Operating Expenses										Operating ratio		Net from railway operation	Railway tax accruals	Net railway operating income	
							Maint. Way and Structures			Maint. Equipment												
			Freight	Pass.	Total (inc. misc.)		Total	Total	Deprec. and Retirements	Total	Total	Deprec. and Retirements	Traffic	Transportation	Tota	Tota						
					1954	1953	1954	1953		1954	1953				1954	1953	1954	1953			1954	1953
Pittsburg & Shawmut	March	97	166	....	167	194	36	46	4	47	45	12	4	38	137	154	82.0	79.3	30	5	58	73
	3 mos.	97	514	....	516	533	90	123	11	133	162	35	13	114	386	466	74.8	87.4	130	14	213	152
Pittsburgh & West Virginia	March	132	581	....	583	758	87	119	23	136	184	36	62	167	489	569	83.8	75.1	95	5	66	121
	3 mos.	132	1,761	....	1,769	2,223	261	311	70	369	529	108	185	495	1,419	1,657	80.2	74.6	350	95	252	357
Reading	March	1,306	8,361	575	9,676	11,480	1,052	1,544	209	1,818	2,316	441	174	3,950	7,426	8,608	76.7	75.0	2,250	843	1,198	1,424
	3 mos.	1,304	24,981	-1,709	28,658	33,470	3,364	4,548	594	5,328	6,845	1,323	476	11,481	21,898	25,651	76.4	76.6	6,760	2,676	3,550	3,904
Richmond, Fredericksburg & Potomac	March	118	1,491	535	2,470	2,644	311	388	24	364	274	70	24	784	1,626	1,639	65.8	62.0	844	355	342	316
	3 mos.	118	4,226	1,718	6,950	7,531	904	995	75	1,006	889	210	66	2,289	4,686	4,708	67.4	62.5	2,264	1,006	851	893
Rutland	March	392	350	....	397	502	80	78	9	63	78	13	25	172	368	446	92.9	88.8	29	25	—27	—1
	3 mos.	392	987	—2	1,111	1,415	221	227	7	187	221	37	68	500	1,051	1,258	94.6	88.9	60	75	—97	....
Sacramento Northern	March	264	189	....	197	451	65	69	4	11	21	4	2	70	159	185	80.7	40.9	38	16	5	9
	3 mos.	264	582	....	601	1,282	211	146	11	39	74	11	7	208	495	498	82.4	38.8	106	43	5	449
St. Louis-San Francisco	March	4,601	8,824	381	9,997	10,973	1,670	1,685	146	1,700	1,844	503	341	3,839	8,123	8,242	81.3	75.1	1,873	664	835	1,241
	3 mos.	4,601	25,590	1,272	29,149	31,318	4,731	4,893	434	4,974	5,427	1,497	1,025	11,218	23,561	24,238	80.8	77.4	5,588	2,015	2,210	3,215
St. Louis, San Francisco & Texas	March	159	375	5	402	454	47	57	12	29	36	1	25	144	257	310	64.0	68.2	144	31	68	37
	3 mos.	159	1,072	14	1,146	1,374	130	184	19	90	116	3	77	462	794	888	69.2	64.6	353	113	127	133
St. Louis Southwestern Lines	March	1,562	5,203	18	5,401	6,969	796	1,022	57	745	685	105	173	1,655	3,559	3,873	65.9	55.6	1,842	826	723	998
	3 mos.	1,561	14,765	44	15,323	19,517	2,246	2,813	156	2,100	1,876	314	514	4,625	10,019	10,793	65.4	55.3	5,305	4,165	217	2,894
Seaboard Air Line	March	4,078	11,904	1,171	14,511	15,333	2,426	2,614	184	2,427	2,539	530	385	4,614	10,410	10,924	71.7	71.3	4,101	1,561	2,094	2,202
	3 mos.	4,078	33,518	3,542	40,566	44,240	6,605	7,284	550	6,898	7,336	1,583	1,100	12,944	29,144	31,242	71.8	70.6	11,422	4,306	6,033	6,549
Southern	March	6,286	19,145	1,231	22,774	24,966	2,995	3,169	228	3,800	4,156	796	438	6,851	15,053	16,036	66.1	64.2	7,722	3,781	3,523	3,987
	3 mos.	6,286	52,551	3,964	62,222	69,723	8,877	8,892	691	11,850	11,726	2,376	1,271	19,979	44,749	45,980	71.9	66.0	17,473	8,104	8,190	10,529
Alabama Great Southern	March	326	1,318	59	1,589	1,756	218	248	30	253	377	62	34	467	1,039	1,304	65.4	74.3	550	252	269	176
	3 mos.	326	3,867	193	4,320	4,989	673	706	92	836	1,020	186	100	1,316	3,123	3,525	69.1	70.7	1,397	536	679	588
Cinn., New Orleans & Texas Pacific	March	337	3,439	176	3,907	4,506	477	462	44	563	931	149	66	918	2,154	2,640	55.1	58.6	1,752	1,001	727	837
	3 mos.	337	9,361	555	10,633	11,974	1,404	1,317	123	1,953	2,504	447	201	2,708	6,667	7,456	62.7	62.3	3,966	2,096	1,705	2,017
Georgia Southern & Florida	March	397	685	96	889	935	187	162	8	74	91	6	21	280	608	543	68.3	58.0	282	38	23	77
	3 mos.	397	1,873	285	2,413	2,594	560	493	24	204	243	19	53	809	1,759	1,541	72.9	59.4	654	116	—89	228
New Orleans & Northeastern	March	203	844	41	965	1,169	130	174	22	123	112	41	20	223	546	583	56.6	49.8	419	287	148	203
	3 mos.	203	2,591	131	2,925	3,235	409	472	59	402	359	121	58	636	1,648	1,721	56.4	53.2	1,277	809	675	522
Southern Pacific	March	8,119	35,994	2,608	41,316	47,618	5,139	5,823	481	8,744	10,073	1,839	846	16,027	32,808	36,348	79.4	76.3	8,507	3,706	3,719	4,406
	3 mos.	8,119	97,000	8,025	112,785	133,842	14,305	16,037	1,510	24,539	27,432	5,502	2,462	45,846	93,068	101,307	82.5	75.7	19,717	9,356	8,109	12,536
Texas & New Orleans	March	4,292	9,589	470	10,971	13,649	1,960	2,325	127	1,598	1,846	146	265	4,033	8,431	9,540	76.8	69.9	2,540	1,350	231	1,269
	3 mos.	4,292	28,841	1,515	32,611	39,028	5,516	6,337	386	4,608	4,978	409	792	11,851	24,503	26,459	75.1	67.8	8,107	3,368	1,733	3,866
Spokane International	March	152	301	1	316	275	50	62	2	30	22	10	5	73	171	172	54.3	62.7	144	58	63	51
	3 mos.	152	707	2	746	723	147	164	7	77	67	29	16	197	471	466	63.1	64.6	275	88	125	121
Spokane, Portland & Seattle	March	944	2,326	59	2,527	2,892	357	359	55	442	347	106	30	885	1,811	1,659	71.7	57.4	716	182	480	607
	3 mos.	944	6,103	210	6,717	7,797	1,039	1,113	149	1,132	1,025	309	88	2,497	5,038	4,849	75.0	62.2	1,679	553	1,026	1,433
Tennessee Central	March	286	377	1	402	476	90	104	6	59	65	22	13	130	316	344	78.7	72.4	86	24	27	62
	3 mos.	286	1,062	2	1,152	1,384	225	290	16	178	193	67	36	387	896	1,015	77.8	73.4	256	73	75	168
Texas & Northern	March	8	91	....	92	117	7	5	....	9	4	3	1	10	32	28	34.6	23.8	60	Cr. 30.	68	24
	3 mos.	8	255	....	263	341	16	14	1	28	23	8	3	29	92	96	34.9	28.3	171	4	99	83
Texas & Pacific	March	1,829	6,178	288	7,000	7,880	1,194	1,099	79	1,053	1,198	242	218	2,230	5,064	5,129	72.3	65.1	1,936	856	682	1,176
	3 mos.	1,829	17,329	961	19,936	22,323	3,253	3,026	258	3,344	3,388	725	618	6,561	14,827	14,794	74.4	66.3	5,108	1,823	2,052	3,233
Texas Mexican	March	161	232	....	244	318	57	70	6	31	31	10	10	57	177	201	72.4	63.1	67	28	20	45
	3 mos.	161	645	....	681	891	168	173	17	86	83	29	27	177	519	550	76.2	61.7	162	62	38	124
Toledo, Peoria & Western	March	239	625	....	635	680	102	100	6	52	50	11	48	140	382	370	60.1	54.4	253	110	84	110
	3 mos.	239	1,787	....	1,818	1,914	311	301	20	152	138	33	136	396	1,100	1,072	60.5	56.0	718	313	238	303
Union Pacific	March	9,816	34,032	2,166	39,029	44,732	4,483	6,489	395	7,348	8,744	1,407	1,088	14,115	28,983	33,966	74.3	75.9	10,046	5,985	2,657	2,565
	3 mos.	9,819	96,182	6,785	110,853	122,640	12,523	15,927	1,300	22,265	24,360	4,069	3,213	42,384	86,529	94,739	78.1	77.2	24,323	15,302	5,112	5,819
Utah	March	110	78	....	78	76	15	18	2	42	40	9	1	32	96	101	122.8	133.1	—18	9	—27	—20
	3 mos.	110	244	....	244	292	49	61	6	131	129	27	2	97	303	336	124.3	115.2	—59	27	—82	—45
Virginian	March	611	2,794	1	2,894	3,196	416	436	61	606	720	184	45	739	1,897	2,065	65.6	64.6	997	571	542	593
	3 mos.	611	8,538	3	8,836	9,542	1,282	1,292	179	2,057	2,216	555	136	2,237	5,983	6,230	67.7	65.3	2,853	1,702	1,608	1,757
Wabash	March	2,393	8,500	326	9,671	10,612	1,204	1,254	120	1,487	1,303	365	317	4,019	7,464	7,473	77.2	70.4	2,207	743	832	1,402
	3 mos.	2,393	24,448	1,056	27,679	28,971	3,359	3,450	311	4,441	3,708	1,078	934	11,539	21,441	21,074	77.5	72.7	6,238	2,104	2,193	3,301
Ann Arbor	March	294	778	....	784	787	83	79	6	136	125	30	29	357	627	568	79.9	72.2	157	63	59	97
	3 mos.	294	2,041	....	2,060	2,216	236	233	20	400	363	91	86	998	1,778	1,622	86.3	73.2	282	97	97	269
Western Maryland	March	857	3,357	3	3,530	4,147	511	514	65	647	758	214	100	1,163	2,607	2,870	73.8	69.2	923	479	626	759
	3 mos.	857	9,964	10	10,506	12,465	1,520	1,471	183	1,994	2,238	636	291	3,450	7,837	8,389	74.6	67.3	2,669	1,396	1,847	2,347
Western Pacific	March	1,193	3,827	174	4,080	5,641	782	983	128	642	651	169	186	1,342	3,189	3,595	78.1	63.7	892	374	434	811
	3 mos.	1,193	10,459	520	11,211	15,035	2,079	2,516	263	1,889	1,893	506	592	3,837	9,080	9,980	81.0	66.4	2,132	1,004	1,003	2,036
Wisconsin Central	March	1,042	2,311	25	2,494	2,934	323	318	43	433	458	74	71	982	1,925	2,065	77.2	70.4	568	136	222	415
	3 mos.	1,042	6,202	84	6,686	7,976	978	966	120	1,312	1,384	227	215	2,915	5,744	6,096	85.9	76.4	942	418	79	793

People in the News

(*Continued from page 16*)
directorship. Mr. Cox was born July 12, 1901, in Gloucester, N. J. He received his law degree from Washington College of Law and also completed a traffic course at La Salle Extension University. He was employed by the New York Central for seven years before joining the commission's staff as a tariff examiner in February 1927. His subsequent positions with the Bureau of Traffic have included assistant

Clarence G. Jensen

chief of the Section of Tariffs, and assistant director of the bureau. Mr. Cox held the latter position from February 1951 until his appointment to the directorship. His service with the commission was interrupted during World War II, when he served, from November 1942 to July 1946, as litigation officer with the Judge Advocate General's Department of the Army. He had the rank of Lieutenant-Colonel.

Squire Confirmed for New Term on Retirement Board

The Senate has confirmed President Eisenhower's appointment of Frank C. Squire for a new term on the Railroad Retirement Board.

Mr. Squire is railroad management's representative on the board. His new term runs for five years from last August 29, since which time he has been serving under a recess appointment.

Clarence Lea Honored

Clarence F. Lea's retirement as director of governmental relations for the Transportation Association of America was marked by a special testimonial luncheon in his honor at Washington's Statler Hotel May 11.

Speakers at the luncheon included representatives of all agencies of transportation and Mr. Lea's successor in the chairmanship of the House Committee on Interstate and Foreign Commerce—Representative Charles A. Wolverton of New Jersey.

Served 32 Years in House—Mr. Lea, who will be 80 years old in July, served in the House for 32 years (1917 through 1948) as representative from California. He was chairman of the Interstate Commerce Committee when the Transportation Act of 1940 was passed.

J. Carter Fort, vice-president and general counsel of the Association of American Railroads, paid him this tribute: "If he never turns his hand again, he will have made a contribution to transportation in this country equaled by few men in history." Mr. Wolverton said he was "one of the most outstanding legislators that has ever served in the House."

Gets Plaque — TAA's first vice-president, Leif Gilstad, presided, and its executive vice-president, Donald D. Conn, presented a plaque to Mr. Lea. On it was reproduced a resolution of appreciation for Mr. Lea's services which was adopted by the association's executive committee. The resolution (*Continued on page 137*)

J. M. SYMES TO BE NEXT PRESIDENT OF PENNSYLVANIA

James M. Symes, executive vice-president, will succeed Walter S. Franklin as president of the Pennsylvania when Mr. Franklin retires May 31.

Mr. Symes, the son of a Pennsylvania baggage master, is a native of Glen Osborne, Pa., near Pittsburgh. He started working for the railroad at 18 years of age in May 1916. His advancement was rapid and he gained experience in freight and passenger work in various cities. He became chief of freight transportation in 1934 and a year later was appointed vice-president in charge of operations and maintenance of the Association of American Railroads at Washington.

Returning to the Pennsylvania in 1939, Mr. Symes became general manager of the Western region at Chicago and three years later vice-president of that region. In 1946 he was advanced to deputy vice-president—operation, at Philadelphia, and in the following year was made vice-president—operation. He has been a director of the company since April 1947 and executive vice-president since January 1952.

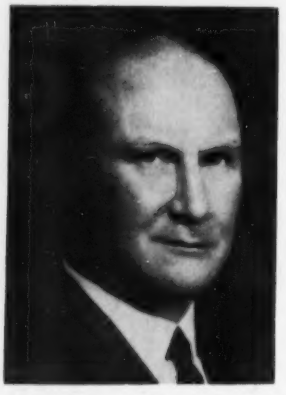
Mr. Symes will be the 13th president of the Pennsylvania in its 108 years of life. He has been particularly active in recent years, with Mr. Franklin, in advancing the company's improvement and rehabilitation program, especially the work of dieselization.

Like Mr. Symes, Mr. Franklin began railroad work at the bottom of the ladder. Following graduation from Harvard he started with the Pennsylvania in October 1906 on the freight platform at Dock Street Station, Philadelphia. He was a freight solicitor in various cities, becoming in 1915 division freight agent at Baltimore, his native city.

During World War I he served in the Transportation Corps. In February 1918 he was placed in charge of movement of American troops through England, and after the Armistice directed the return of troops from both England and France.

While in the Army, Mr. Franklin was appointed assistant general freight agent at Philadelphia. In 1928 he became general agent at Detroit and a year later was made general superintendent of the Northwestern division at Chicago. He was president of the Detroit, Toledo & Ironton from July 1929 to January 1931. He was elected president of the Wabash in October of that year and planned its corporate reorganization, returning to the Pennsylvania in October 1933 as vice-president in charge of traffic. In April 1947 he was appointed executive vice-president and in June 1949 was elected president.

James M. Symes



Walter S. Franklin

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SOLVESSO—Aromatic solvent
ESSO Weed Killer
ESSO Hot Box Compound
AROX—pneumatic tool lube
CYLESSO—valve oil
ESSO Journal box compound
Asphalt
Cutting Oils
Rail Joint Compounds
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Signal Department Products
RUST-BAN—corrosion preventive

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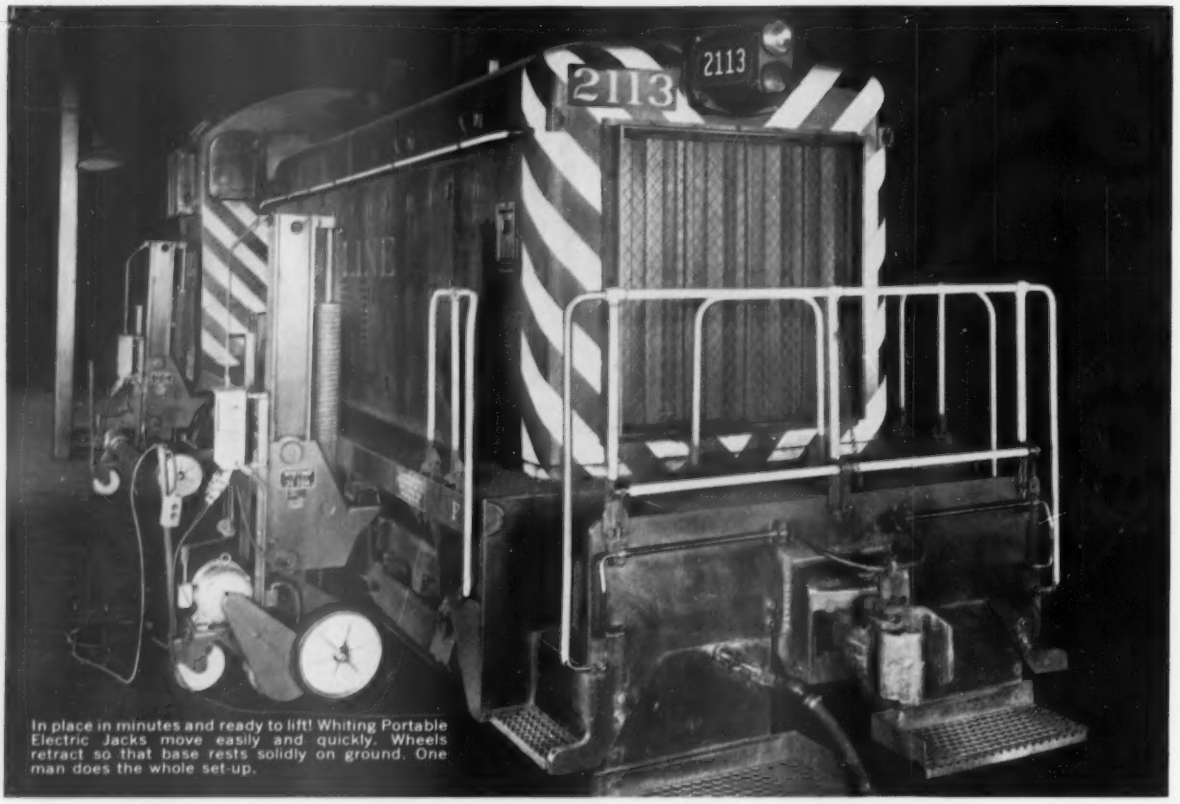
SOLD IN: Maine, N. H., Vt., Mass., R. I., Conn., N. Y., N. J., Pa., Del., Md., D. C., Va., W. Va., N. C., S. C., Tenn., Ark., La.

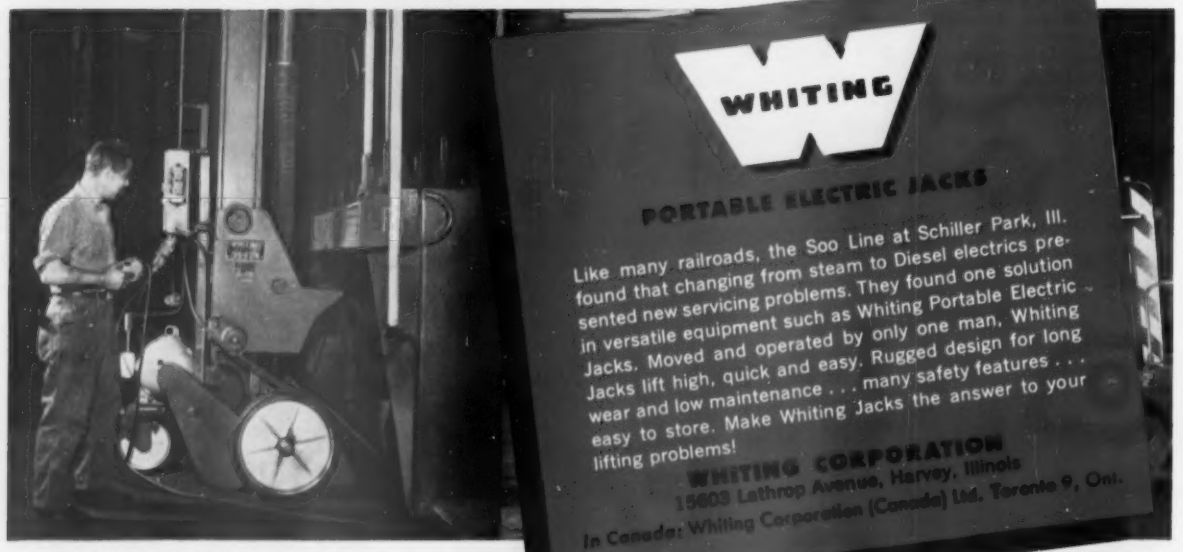
ESSO STANDARD OIL COMPANY — Boston, Mass. — New York, N. Y. — Elizabeth, N. J. — Philadelphia, Pa. — Baltimore, Md. — Richmond, Va. — Charlotte, N. C. — Columbia, S. C. — Memphis, Tenn. — New Orleans, La.



In place in minutes and ready to lift! Whiting Portable Electric Jacks move easily and quickly. Wheels retract so that base rests solidly on ground. One man does the whole set-up.

A ONE-MAN LIFT TELLS A TWO-SIDED STORY

at the SOO LINE SHOPS



One man handles the entire lifting job, using push-button control. Either two or four Whiting Portable Jacks may be operated in unison by one small portable push-button.

Free Bulletin →
Bulletin PJC-402 tells all about Whiting Portable Jacks. Write today for your copy! →

People in the News

(*Continued from page 134*)
noted that Mr. Lea will continue to serve as a member of TAA's board of directors.

Mr. Lea's response included tributes to the Interstate Commerce Commission and to TAA. The latter, he said, is trying to give life to the national transportation policy. He expressed hope that a sound transport program would be developed despite conflicting interests.

Of the ICC, Mr. Lea had this to say: "It is one of the great institutions of this country. I trust that its independence will never be defaced. I never want to see it subservient to the Executive Department."

Other speakers were Earl D. Johnson, president Air Transport Association; John V. Lawrence, managing director, American Trucking Associations; Gordon C. Locke, executive secretary, Committee for Pipe Line Companies; and Chester C. Thompson, President, American Waterways Operators.

Figures of the Week

February Accidents

The ICC has made public its Bureau of Transport Economics and Statistics' preliminary summary of "steam" railway accidents for February and this year's first two months. The compilation, subject to revision, follows:

Item	Month of February 1954	Month of February 1953	2 mos. ended with February 1954	2 mos. ended with February 1953
Number of train accidents*	584	731	1,297	1,536
Number of accidents resulting in casualties	38	52	87	105
Number of casualties in train, train-service and nontrain accidents:				
Trespassers:				
Killed	50	49	95	103
Injured	60	53	105	120
Passengers on trains:				
(a) In train accidents*				
Killed	..	..	..	..
Injured	15	30	23	102
(b) In train-service accidents				
Killed	1	2	4	3
Injured	119	137	262	299
Travelers not on trains:				
Killed	..	..	..	1
Injured	53	71	135	155
Employees on duty:				
Killed	20	18	42	50
Injured	1,210	1,489	2,644	3,178
All other nontrespassers:**				
Killed	107	129	247	274
Injured	410	505	1,000	1,076
Total — All classes of persons:				
Killed	178	198	388	431
Injured	1,867	2,290	4,169	4,930

*Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former caused damage of $350 or more to railway property in 1953. Beginning January 1, 1954, the minimum will remain at $350. Only a minor part of the total accidents result in casualties to persons, as noted above.

**Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties for all classes of persons, including both trespassers and nontrespassers, were as follows:

Persons:				
Killed	108	130	241	266
Injured	335	370	739	770

Freight Car Loadings

Loadings of revenue freight in the week ended May 8 totaled 647,154 cars, the Association of American Railroads announced on May 13. This was an increase of 29 cars compared with the previous week; a decrease of 117,457 cars, or 15.3 per cent, compared with the corresponding week last year; and a decrease of 71,905 cars, or 10.0 per cent, compared with the equivalent 1952 week.

Loadings of revenue freight for the week ended May 1 totaled 647,925 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, May 1

District	1954	1953	1952
Eastern	110,811	138,210	124,976
Allegheny	117,704	161,706	139,000
Pocahontas	46,323	53,986	55,436
Southern	116,789	130,906	133,355
Northwestern	98,417	125,064	115,710
Central Western	103,899	112,033	113,769
Southwestern	53,982	59,594	62,478
Total Western Districts	256,298	296,691	291 957
Total All Roads	647,925	781,499	744,724
Commodities:			
Grain and grain products	47,049	41,312	41,824
Livestock	8,333	9,071	11,091
Coal	96,163	122,328	127,619
Coke	7,048	14,114	10,905
Forest products	40,097	43,919	43,634
Ore	45,503	83,890	70,281
Merchandise l.c.l.	61,891	70,062	72,700
Miscellaneous	341,841	396,803	366,670
May 1	647,925	781,499	744,724
April 24	626,181	779,804	779,489
April 17	612,884	751,628	735,069
April 10	606,790	721,139	670,752
April 3	599,302	704,517	705,889
Cumulative total, 18 weeks	10,933,983	12,621,374	12,997,315

In Canada.—Carloadings for the seven-day period ended April 21 totaled 59,245 cars, compared with 66,274 cars for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
April 21, 1954	59,245	27,126
April 21, 1953	78,862	31,461
Cumulative Totals		
April 21, 1954	1,028,850	451,099
April 21, 1953	1,131,303	499,913

Equipment & Supplies

Cuba Requests Bids for Cars, Diesels and Rail

The Western Railways of Cuba have requested bids for supply of various types of equipment, including six 800-hp diesel units, 25 hopper-type ballast cars, 2,051 tons of 100-lb rail and 1,103 tons of 80-lb rail, according to Foreign Commerce Weekly. A list of requirements is obtainable from the Commercial Intelligence Division, Bureau of Foreign Commerce, U.S. Department of Commerce, Washington 25, D.C.

LOCOMOTIVES

The **New York Central** is considering purchase of 62 additional diesel switching units, William White, NYC president, said last week. The units would operate in such yards as those at Sharonville, Ohio, and Bellefontaine.

FREIGHT CARS

4,038 Freight Cars Delivered in April

New freight cars delivered in April for domestic use totaled 4,038, compared with 4,823 in March and 6,839 in April 1953, the American Railway Car Institute and the Association of

EMPLOYEES, of various crafts, who helped to build 102 50-ton flat cars at Western Pacific company shops at Sacramento, Cal. The construction program was completed early this year.

American Railroads have announced jointly.

Orders for 909 new freight cars were placed in April, the announcement added, and the backlog of cars on order and undelivered May 1 amounted to 17,817, compared with 20,966 on April 1. A breakdown by type of cars ordered and delivered in April, and of cars on order May 1, follows:

Type	Ordered April '54	Delivered April '54	On Order & Undelivered May 1, '54
Box—Plain	200	1,529	6,681
Box—Auto	0	0	1,000
Flat	0	293	905
Gondola	7	638	347
Hopper	0	445	1,155
Covered Hopper	116	468	997
Refrigerator	100	174	3,979
Tank	221	443	2,404
Caboose	15	0	85
Other	250	48	264
TOTAL	909	4,038	17,817
Car builders	544	2,981	6,312
Company shops	365	1,057	11,505

The **Louisiana & Arkansas** has ordered 250 70-ton pulpwood cars from the Pullman-Standard Car Manufacturing Company at an estimated unit cost of $6,300. Delivery is scheduled for early in the third quarter of 1954.

The **Union Tank Car Company** has ordered 50 50-ton tank cars from its own shops.

Supply Trade

Cox McGeorge Company, 202 Marshall building, Cleveland, has been formed to act as sales agent for Hobart Bros. Company, Motor Generator Corporation, General Communications, Inc., Cleveland Hardware & Forgings

Arthur T. Cox, Jr.

Co., and other railway locomotive and car specialty accounts. The partners are **Arthur T. Cox, Jr.,** formerly vice-president, sales, Lincoln Electric Railway Sales Company, **Donald H. McGeorge,** and **James A. Butler.**

American Car & Foundry Co. has appointed **Shippers' Car Line Corporation,** a subsidiary, as exclusive sales representative for ACF-built tank cars and tank car parts. **John P. Krumech,** vice-president of Shippers, has been named vice-president, sales; **Robert S. Slater,** manager of tank car sales for ACF, has been appointed vice-president of Shippers; and **Edgar F. Whitmore, Jr.,** has been promoted to assistant vice-president, reporting to Mr. Krumech.

John P. Krumech

Robert S. Slater

Henry S. Wingate, vice-president, has been elected president of **International Nickel Company of Canada.**

McKinley Equipment Company has been appointed sales representative of **Mercury Manufacturing Company** in the Los Angeles area.

Les Jensen, assistant to supervisor of industrial truck design of **Hyster Company,** has been named eastern division sales engineer.

A. A. Helwig, vice-chairman of **Standard Railway Equipment Manufacturing Company,** at Chicago, has been elected chairman, to succeed **Arthur A. Frank,** retired. (*Railway Age,* May 3). Mr. Helwig entered the railway field as apprentice mechanic with the Minneapolis & St. Louis, and became general foreman of the Alton (GM&O) in 1915. Joining

A. A. Helwig

A. A. Frank

Standard Railway as vice-president in 1937, he was elected president in 1945 and vice-chairman in 1948.

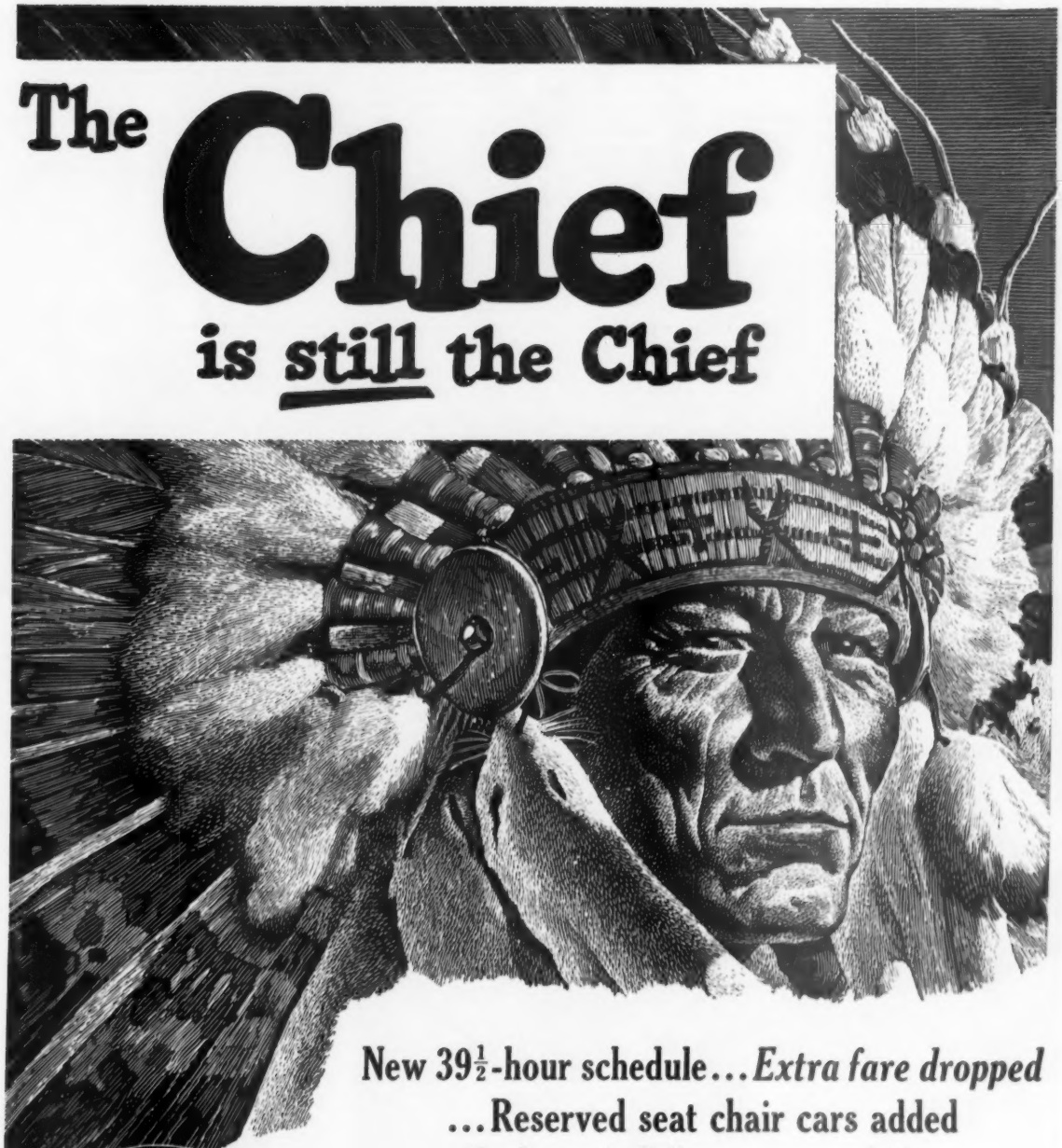
Securities

Missouri-Kansas-Texas.—*Recapitalization.*—Donald V. Fraser, Katy president, told stockholders at the May 7 annual meeting in St. Louis that formulation of a recapitalization plan is being retarded pending determination of the final form of the proposed Internal Revenue Code revision (HR 8300), now before the Senate Finance Committee. Sections of the measure, if enacted into law, Mr. Fraser said, would adversely affect the tax status of the proposed recapitalization.

He predicted that, if HR 8300 is passed as it presently reads, the railroad would be unable to obtain acceptance of a voluntary recapitalization plan under the Mahaffie Act because stockholders could not be expected to vote for a plan which, at the time of exchange of securities,

(*Continued on page 140*)

The Chief is still the Chief



New 39½-hour schedule... *Extra fare dropped* ...Reserved seat chair cars added

No change in Pullman accommodations

Still the Chief—still the standard of fine service, comfort and streamlined luxury between Chicago, Kansas City and Los Angeles. Now available to more travelers than ever.

. New, faster schedule—39½ hours—Morning departure from Chicago 9 a.m., afternoon from Kansas City 4:30 p.m. Arriving Los Angeles 10:30 p.m. Westbound, *only one night en route.*

. Modern streamlined chair cars added, with new type reclining seats (all seats reserved)

Special lounge for chair car passengers. Lunch-counter-diner with budget meals (as little as $2.50 per day)

. No change in Pullman service or accommodations. de luxe lounge . full dining car service . Fred Harvey meals.

. . . And now you can ride the famous *Chief* at no extra fare.

New savings, new features, on these famous trains

SUPER CHIEF—Extra fare cut in half, now only $7.50. Coast-to-coast Pullmans added. Only all-private-room streamliner. Chicago-Kansas City-Los Angeles. Same fast schedule—39½ hrs.

EL CAPITAN—Extra fare dropped completely. Budget meal service added (as little as $2.50 a day). New cars with new style reclining seats. Same fast schedule—39½ hrs.—Chicago-Kansas City-Los Angeles.

Santa Fe

America's New Railroad

Securities

(Continued from page 138)
creates taxable income but provides no money with which to pay the tax.

Authorization

NORTHERN PACIFIC.—To assume liability for $4,575,000 of equipment trust certificates to finance in part 275 refrigerator cars, 11 passenger cars and 4 diesel units, expected to cost about $5,730,800 (*Railway Age*, April 26, page 38). Division 4's report approved sale of the certificates at 99.3699 with a 2⅝% interest rate—the bid of Halsey Stuart & Co. and 6 associates—making the annual cost of proceeds to the road approximately 2.74%. The certificates, dated May 14, will mature in 15 annual installments of $305,000 each, beginning May 14, 1955. They were reoffered to the public at prices yielding from 1.45 to 2.8%, according to maturity.

Application

BANGOR & AROOSTOOK.—To assume liability for $975,000 of equipment trust certificates to finance in part this equipment: Five diesel-electric freight locomotives from the Electro-Motive Division, General Motors Corporation, at an estimated unit cost of $173,000; two sleeping cars from the Pullman-Standard Car Manufacturing Company, at an estimated unit cost of $185,000. Total cost of the equipment would be about $1,235,000. The certificates, dated June 1, would mature in 15 annual installments of $65,000 each, beginning June 1, 1955. They would be sold by competitive bids with the interest rate set by such bids.

Security Price Averages

	May 11	Prev. Week	Last Year
Average price of 20 representative railway stocks	64.76	64.90	64.38
Average price of 20 representative railway bonds	94.98	95.21	91.41

Dividends Declared

ALBANY & VERMONT.—$1.25, semiannual, payable May 15 to holders of record May 1.

CHESAPEAKE & OHIO.—common, 75¢, quarterly, payable June 21 to holders of record June 1; 3½% conv. preferred, 87½¢, quarterly, payable August 1 to holders of record July 7.

MAINE CENTRAL.—5% preferred, $2.50, accumulated, payable June 1 to holders of record May 15.

NORFOLK SOUTHERN.—42½¢, quarterly, payable June 15 to holders of record as of June 1.

NORTH PENNSYLVANIA.—$1, quarterly, payable May 25 to holders of record May 18.

PITTSBURGH & WEST VIRGINIA.—50¢, quarterly, payable June 15 to holders of record May 20.

PITTSBURGH, YOUNGSTOWN & ASHTABULA.—7% preferred, $1.75, quarterly, payable June 1 to holders of record May 20.

WEST JERSEY & SEASHORE.—6% guaranteed, $1.50, semiannual, payable June 1 to holders of record May 14.

Railway Officers

Keister Moves from A&D to TC

Succeeds H. W. Stanley as head of Tennessee Central—L. D. Curtis becomes president of Atlantic & Danville

In a three-way move involving two Class I railroads, Earl L. Keister, president of the 205-mile Atlantic & Danville since its reversion to independent operation in 1948, has become president, at Nashville, Tenn., of the 286-mile Tennessee Central. In that position, he succeeds Hugh W. Stanley, who has retired after nearly 37 years as executive head of the TC. At Norfolk, Va., on the A&D, Mr. Keister has been succeeded, in turn, by Leslie D. Curtis, formerly vice-president of that company (*Railway Age*, April 5).

Simultaneously, as reported in *Railway Age* April 19, Mr. Stanley, who will continue as a TC director, has been succeeded as chairman of that company's board by J. Lewis Armstrong, senior vice-president at Philadelphia; and P. D. Houston, Sr., vice-president and treasurer, retired, has been succeeded by Leo Neilson, a TC director.

H. W. Stanley—Mr. Stanley, who has devoted just short of 64 years to railway service, was probably the oldest chief executive, in point of service, on any of the country's Class I railroads. Born at Petersburg, Va., February 13, 1874, he worked with the Norfolk & Western from 1890 to 1895 as telegraph operator, stenographer and chief clerk; with the Southern to 1897 as chief clerk; with the Seaboard

H. W. Stanley

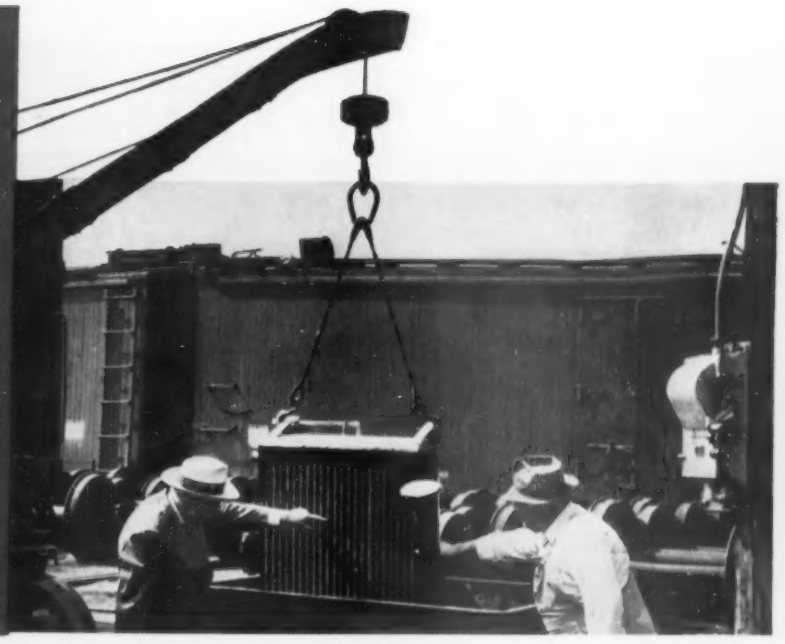
Air Line to 1916 as secretary, chief clerk, trainmaster, superintendent, superintendent transportation, general superintendent transportation, assistant general manager, general manager, and assistant to president; and with the former American Railway Association to 1917 as assistant to chairman, Car Service Commission. He began his connection with the TC as its receiver in July 1917; was elected president in 1922, and chairman of the board in 1946.

E. L. Keister—Mr. Stanley's successor, Mr. Keister, is a native of Knoxville, Tenn., where he was born

(Continued on page 143)

ARTHUR H. GASS, chairman of the Car Service Division of the Association of American Railroads, was recently honored by the National Defense Transportation Association with a special "tribute of appreciation" for "outstanding contributions to defense transportation during 1953." Shown here presenting the citation to Mr. Gass (third from left) is E. Grosvenor Plowman, president of NDTA, and vice-president in charge of traffic of the United States Steel Corporation. Also shown attending the presentation are (left) Col. Francis W. Crary (USA retired), executive director of NDTA, and (right) William T. Faricy, president of the AAR.

Hot Days Ahead!



. . . Now's the time to ready your air-conditioning units for trouble-free performance.

BEFORE we know it the stifling heat of summer will be upon us. Railroad's perennial problem of passenger comfort must be shouldered and successfully solved.

Good reason, therefore, to make your move NOW toward putting your air-conditioning units in mint condition for peak summer performance.

One of your toughest air-conditioning maintenance jobs is the exterior cleaning of under-car condenser cooling units. Come springtime the fins of these cooler coils are thoroughly clogged with all manner of soils, greases, cinders, other extraneous matter that seriously impair heat transfer efficiency.

Why not let Oakite solve this "toughie" for you? Set up a speedy, economical system of energetic washing with well-agitated solution of heavy-duty Oakite cleaning compound?

free booklet . . .

describes tank and steam-gun methods of cleaning under-car condenser cooling units plus many other air conditioning maintenance jobs including the cleaning of overhead evaporative cooling coils; mass production tank-cleaning of panel type filters; descaling evaporators, etc. You can get your copy simply by writing address below. No obligation.

OAKITE

OAKITE PRODUCTS, INC., 46 Rector Street, NEW YORK 6, N. Y.
In Canada: Oakite Products of Canada, Ltd. 65 Front St. East, Toronto, Ont.

RAILWAY DIVISION

Railway Officers

(Continued from page 140)
March 31, 1903, and also educated (University of Tennessee, 1926). He began his railway service in the latter year, in the engineering department of the Southern, and was with that company or its subsidiaries continuously until 1948, serving successively as

E. L. Keister

track supervisor, trainmaster, and superintendent of various divisions, his final Southern position being superintendent of the Danville division at Greensboro, N.C. When the A&D became a separate company after nearly 50 years of operation under Southern lease, Mr. Keister was elected its first operating chief executive, effective September 1, 1948.

L. D. Curtis—The new A&D president, Mr. Curtis, was born at Bayard, Iowa, December 23, 1901; attended the University of Nebraska, and entered railway service with the Chicago & North Western in February 1926. In 1927 he joined the engineering de-

L. D. Curtis

partment of the Belt Railway of Chicago, transferring to its traffic department in 1932 and serving until 1942 as general agent at Pittsburgh and San Francisco. During World War II he spent 42 months overseas with the 3rd Military Railway Service (Persian Gulf Command) eventually becoming its commanding officer. He returned to the Belt as general freight agent in 1946; spent eight months in 1948 and 1949 on the staff of the American Ambassador to India as consultant on the Indian National Railway System; and joined the A&D as vice-president in May 1949.

BANGOR & AROOSTOOK. — **Earle H. Kelley,** freight claim agent, has been appointed assistant to comptroller, in addition to his former duties. **J. Gregg Beckett,** chief clerk, freight claim department, has been named chief claims adjustor. **John E. Hess,** assistant general counsel, has been

W. Jerome Strout

Raymond W. Dow

elected clerk of the corporation, replacing **Gordon D. Briggs** in that position. As reported in *Railway Age* May 3, **W. Jerome Strout** has been named vice-president—operations and maintenance, at Bangor, and **Raymond W. Dow** has been appointed assistant vice-president.

GREAT NORTHERN. — **H. K. Osterbeck,** traveling freight agent at Milwaukee, has been promoted to general agent there, succeeding **B. C. Culbertson,** who retired May 1.

G. V. Guerin, bridge engineer at St. Paul, has been named assistant chief engineer at Seattle, succeeding **H. M. Goehring,** who retired April

G. V. Guerin

R. W. Gustafson

30. Named to replace Mr. Guerin is **R. W. Gustafson,** assistant bridge engineer at Seattle. **C. D. Archibald** succeeds Mr. Gustafson.

LOUISVILLE & NASHVILLE.— **R. C. Parsons,** general manager at Louisville, has been elected vice-presi-

R. C. Parsons

dent—operation and general manager, succeeding **Col. L. L. Morton,** who has retired after 42 years of service.
(Continued on page 145)

KEEP MORE PASSENGERS COMFORTABLE

. . . with bright, steady lights and cool cars!

Built by The Budd Company, this new Santa Fe coach on the El Capitan provides maximum travel comfort, with adjustable head and leg rests, fluorescent lighting, air conditioning, clean styling.

COMFORTABLE passengers are satisfied customers. Exide-Ironclad batteries insure ample power for bright, steady lights and comfortable cars even during long stops. Built to withstand hard, continuous service, they give you worry-free performance, maintain high, uniform voltage under all operating loads. Lower costs for operation, maintenance and depreciation make Exide-Ironclad batteries your best power buy—AT ANY PRICE!

THE POSITIVE PLATES are the heart of any battery. Only Exide uses a slotted tube construction. By use of tubes, more active material is exposed to the electrolyte, providing *greater power*. Also, more active material is retained, giving *longer working life*.

IMPROVED Exide-Ironclads now have power tubes made from *non-oxidizing* plastic for longest battery life, more capacity in the same space. For full details, call your Exide sales engineer—write for Form 5010 (Installation and Maintenance of Car Lighting and Air Conditioning Batteries).

Your best power buy
. . . AT ANY PRICE!

Exide®
IRONCLAD® BATTERIES

Exide INDUSTRIAL DIVISION, The Electric Storage Battery Company, Philadelphia 2, Pa. • *Exide Batteries of Canada, Limited, Toronto*

Railway Officers

(*Continued from page 143*)

Elected as treasurer is **M. C. Browder,** secretary, who replaces **J. C. Michael,** who has retired after 54 years of service. Mr. Browder, in turn,

M. C. Browder

J. T. Healy

has been succeeded by **Frank D. Burke,** chief clerk, president's office.

Named to replace **J. R. Watt,** general purchasing agent, who is retiring, after 49 years of service, is **J. T. Healy,** assistant to general purchasing agent. **E. M. Cottrell** has been named assistant general purchasing agent and **John T. Koehler** has been appointed assistant to general purchasing agent. All will have headquarters at Louisville.

Mr. Parsons was first employed by the L&N in 1905 as telegraph operator. In 1918 he was appointed assistant trainmaster, and subsequently progressed through the positions of assistant superintendent transportation, superintendent transportation and director of personnel, and assistant vice-president—assistant general manager (transportation and mechanical) until 1946, when he was named general manager.

Mr. Browder joined the L&N as messenger in the telegraph department

(*Continued on page 148*)

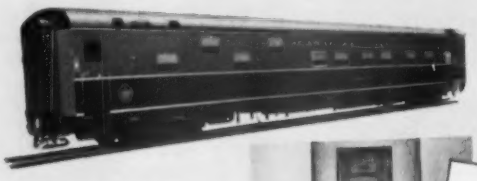
P-S PASSENGER CARS

Cors of Low Alloy, Stainless or Aluminum, or combinations of these metals, can be produced by Pullman-Standard's continuous line production techniques. It is these techniques, plus the specialized tools that assure custom-quality construction at no greater cost.

The Finishing Touch makes a big difference. Craftsmen, with generations of quality workmanship as a tradition, contribute to the perfection of the finished products, both inside and out.

New Highs in the Art of Welding are reached in Pullman-Standard built passenger cars. Welding, engineered by the leaders in the field, employs advanced methods and materials to build better and stronger cars.

M.K.T. Stainless Steel Coach illustrates the improved construction techniques utilized in producing better all-stainless-steel cars.



C.N.R. now is receiving the remainder of the 141 passenger cars ordered from Pullman-Standard; included are sleepers, diners and diner-sleeper combinations.

L.I. commuter coaches provide maximum capacity and safety. These cars, like most Pullman-Standard built passenger cars, are the result of close cooperation between purchaser and supplier.

This N.Y., N.H. and H. commuter coach is one of the 322 P-S built passenger cars put into service in recent years; included are sleeping cars, dining and grill-service parlor and lounge cars.

MAKE THE HEADLINES

During the past year, passenger cars built by Pullman-Standard, upheld the "headliner" tradition—a tradition established when George M. Pullman built the first Hotel Car in 1867.

Today's cars have proved to be headline makers for the lines on which they serve. And they're all headliners for efficient, economical operation.

Each lot of sleepers, diners, dome cars and coaches include features which combine passenger appeal with practical operating advantages.

It is because Pullman-Standard produces more passenger cars, for more railroads, that advanced techniques and specialized tools can be used in producing better cars at lower cost.

Whether you are interested in cars made of low alloy, stainless steel, aluminum, or combinations of these metals, you can continue to look to Pullman-Standard for the production of passenger cars that will make the headlines.

YOUR NEEDS CREATE THE PULLMAN "STANDARD"

PULLMAN-STANDARD

CAR MANUFACTURING COMPANY

SUBSIDIARY OF PULLMAN INCORPORATED

79 EAST ADAMS STREET, CHICAGO 3, ILLINOIS

BIRMINGHAM, PITTSBURGH, NEW YORK, SAN FRANCISCO, WASHINGTON

C.M.St.P.&P. Super Domes represents a new high in passenger service. The full-length domes have many new comfort features which attract passenger attention.

I.C. sleeper. The architectural features, colors, decorations, fabrics and floor coverings of this eleven bedroom sleeper are an excellent example of modern interior finish.

C&EI, L&N, and N.C.&St.L. pooled their orders for this 6-4-6 "S" type accommodation sleeper to effect significant savings.

G.T.W. coach combines attractive appearance with sturdy durability. This 76 coach offers further evidence of the lasting value of quality construction.

Sound Passenger Car Engineering permits a wide variety of interior arrangements and exterior treatments without the time and dollar penalties usually associated with "extras" or "specials". Pullman-Standard passenger cars combine maximum weight saving with durability.

We don't like high-pressure tactics, since a name for reliable selling is one of the most valuable things we have."

"Outdoor" Business

will be tempted to give real concessions in return for promises by the Reds that they will be good in the future. Mr. Dulles and his diplomats regard that sort of thing as the quickest way toward self-destruction.

Railway Officers

(Continued from page 145)
in 1916; was transferred to the president's office later that year, and, after successive advancement, became secretary to president in 1927, chief clerk in 1939 and secretary of the company in 1944.

Mr. Healy came to the L&N as stores department stock boy in 1914. In 1916 he was transferred to the general purchasing department, subsequently holding a number of clerical positions there. He was named expediter and adjustment clerk prior to his advancement to assistant to general purchasing agent in 1947.

OBITUARY

Herbert Deeming, retired editor of the **Santa Fe** Magazine, died May 7 at the Santa Fe Hospital in Topeka, Kan.

Richard B. Elster, general solicitor of the **Wabash,** died May 6 at Alexian Brothers Hospital, St. Louis.

Organizations

Eastern Seaboard Apprenticeship Conference

More than 400 industrial, labor, education, and federal and state government representatives will attend the annual Eastern Seaboard Apprenticeship Conference at Equinox House, Manchester, Vt., May 26-28. This, the 10th in a series of annual apprenticeship conferences in eastern states, is arranged by the Vermont Apprenticeship Council and the Bureau of Apprenticeship, U.S. Department of Labor.

The meeting will be headed by E. Reynold Johnson, chairman, VAC, assisted by Albert A. Fraser, secretary. Leaders from management, labor, education and government will discuss apprenticeship and training for skilled crafts under the theme, "Management and Labor Through Apprenticeship Can Supply Necessary Skilled Labor."

The conference will open with a general meeting the evening of May 26, with Lieutenant-governor Joseph B. Johnson of Vermont and Assistant Secretary Rocco C. Siciliano of the U.S. Labor Department as speakers. Scheduled during other sessions are separate section meetings on apprentice training in various industries. The conference will end with a banquet May 28, when principal speakers will be Ralph E. Flanders, U.S. senator from Vermont, and Lee E. Emerson, governor of Vermont.

The railroad apprenticeship conference will be held May 27, at 10 a.m., under the chairmanship of M. S. Riegel, supervisor personnel—equipment, New
(Continued on page 151)

one of 3,217,108 new smiles

traveling the

New Haven

You can tell by that smile he's one contented guy.

And why shouldn't he be? He's riding one of New Haven's new, self-propelled rail-diesel cars. He's traveling in smooth, swift, air-conditioned comfort.

Improvements in equipment, roadbeds and running time have won millions of new passenger smiles for the New Haven.

Yes, passenger figures are going up because the New Haven is going forward. It's investing today in better rail service for the passengers of tomorrow.

The New Haven Railroad

. . the spirit of action in New England!

When planning your trip to

NEW YORK, NEWARK, SCRANTON BINGHAMTON, ELMIRA or BUFFALO

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and go the way of streamlined luxury!

Now a beautiful train practically wafts you in wonderful luxury to all these cities. Lackawanna's superb new diesel-powered passenger train brings you daily 2-way service plus matchless comfort and all the conveniences of home.

The shortest rail route between New York and Buffalo is one of the nation's smoothest, too. Your choice of deluxe accommodations includes modern air-conditioned Coaches, Parlor Car, Observation-lounge Car, Dining Car and all-private room Sleeping Car for through travel between New York and Chicago.

Keep your date with PHOEBE SNOW... Go Lackawanna, and enjoy every mile of your trip.

The observation-lounge car on The Phoebe Snow is available to all passengers at no extra fare.

Lackawanna Railroad

THE ROUTE OF PHOEBE SNOW

Organizations

(*Continued from page 148*)

York Central. Vice-chairman will be P. L. Shackelford, international representative, Sheet Metal Workers' International Association, and executive secretary, W. E. Lehr, superintendent motive power, Lehigh Valley. Speakers will be E. K. Bloss, mechanical superintendent, Boston & Maine, and M. Fox, president, Railway Employees' Department, AFL, Chicago. Discussion leader will be R. H. Moran, general chairman, International Association of Machinists, and secretary-treasurer, System Federation 109, Reading.

Further information is available from J. A. Morrison, Bureau of Apprenticeship, U.S. Department of Labor, 270 Broadway, New York 7.

The May 27 meeting of the **New York Railroad Club,** in the Hotel Commodore, has been designated as "Ladies Night." Entertainment, "an evening of magic," by Paul Fleming, professional magician, will follow a 6 p.m. reception and 7 p.m. dinner in the grand ballroom.

Meetings & Conventions

The following list gives names and addresses of secretaries, and dates and places of next or regular meetings.

AIR BRAKE ASSOCIATION.—Lawrence Wilcox, Room 827, 80 E. Jackson Blvd., Chicago 4.

ALLIED RAILWAY SUPPLY ASSOCIATION.—C. F. Weil, P. O. Box 5522, Chicago 80.

AMERICAN ASSOCIATION OF BAGGAGE TRAFFIC MANAGERS.—T. R. Stanton, 1450 Railway Exchange Bldg. St. Louis 1. Annual meeting, June 15-17, 1954, Edgewater Beach Hotel, Chicago.

AMERICAN ASSOCIATION OF PASSENGER RATE MEN.—William Bina, 1115 Railway Exchange, Chicago 4. Annual meeting, September 23-25, 1954, Cosmopolitan Hotel, Denver.

AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS.—B. D. Branch, Eastern Time Table Distributing Company, Liberty Street Terminal, New York 6. Annual meeting, October, 1954, Huntington Hotel, Pasadena, Cal.

AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS.—Miss Elise La Chance, Room 901, 431 S. Dearborn St., Chicago 5. Annual meeting, June 8-10, 1954, Hotel La Salle, Chicago.

AMERICAN ASSOCIATION OF TRAVELING PASSENGER AGENTS.—C. A. Melin, P. O. Box 5025, Cleveland 1. Annual meeting, September, 1954, Los Angeles.

AMERICAN COUNCIL OF RAILROAD WOMEN.—Amy Mitchell, Atlanta & West Point, Atlanta 3. Annual meeting, October 4-6, 1954, Hotel Utah, Salt Lake City.

AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION.—Miss Elise La Chance, Room 901, 431 S. Dearborn St., Chicago 5. Annual meeting, September 13-15, 1954, Conrad Hilton Hotel, Chicago.

AMERICAN RAILWAY CAR INSTITUTE.—W. C. Tabbert, 19 E. 47th St., New York 17.

AMERICAN RAILWAY DEVELOPMENT ASSOCIATION.—D. M. Lynn, Erie, 514 Republic Bldg., Cleveland 15.

AMERICAN RAILWAY ENGINEERING ASSOCIATION.—Works in cooperation with the Association of American Railroads, Engineering Division—Neal D. Howard, 59 E. Van Buren St., Chicago 5.

AMERICAN RAILWAY MAGAZINE EDITORS ASSOCIATION.—G. P. McCallum, Maine Central, 222 St. John St., Portland, Me. Annual meeting, September, 1954, Mt. Royal Hotel, Montreal.

AMERICAN SHORT LINE RAILROAD ASSOCIATION.—C. E. Huntley, 2000 Massachusetts Ave., N. W., Washington 6, D. C. Annual meeting, October 19-20, 1954, Hotel New Yorker, New York.

AMERICAN SOCIETY FOR TESTING MATERIALS.—R. J. Painter, 1916 Race St., Philadelphia 3. Annual meeting, June 14-18, 1954, Sherman and Morrison Hotels, Chicago.

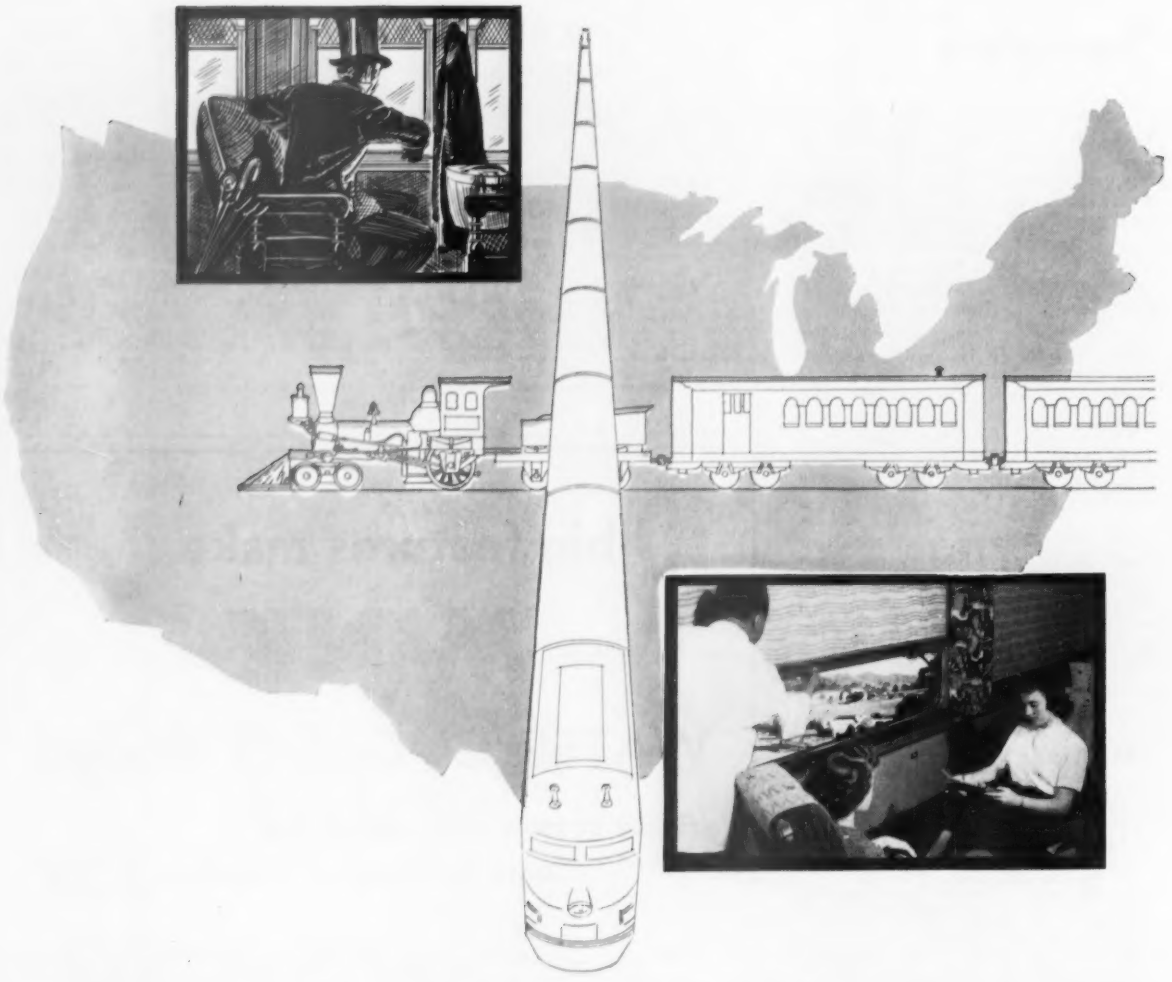
AMERICAN SOCIETY OF MECHANICAL ENGINEERS.—C. E. Davies, 29 W. 39th St., New York 18.

RAILROAD DIVISION.—E. L. Woodward, *Railway Locomotives and Cars*, 79 W. Monroe St., Chicago 3.

AMERICAN WOOD-PRESERVERS' ASSOCIATION.—W. A. Penrose, 839 Seventeenth St., N. W., Washington 6, D. C.

(*Continued on page 153*)

E. V. GROGAN (left), track supervisor for the New York Central, and newly elected president of the Metropolitan Maintenance of Way Club, presents a gift certificate to the retiring president, Ralph I. Frame, track supervisor for the New York City Board of Transportation. Other club officers for 1954-55 are A. H. Whisler, assistant engineer, Pennsylvania, and W. E. Kropp, supervisor maintenance of way equipment, Lehigh Valley, vice-presidents; and J. S. Vreeland, vice-president, Simmons-Boardman Publishing Corporation, secretary-treasurer.



PROGRESS

. . . can only come with cooperation. No one man, no one company, no one industry, can achieve a better way of life by single action. Common good is the product of common effort.

During the last century, the railroads of America have progressed amazingly in speed, comfort and convenience . . . as a result of the cooperation between operators and suppliers, between labor and management, between designers and builders.

For 97 years of that century, the ADLAKE name has played a part in that progress. During the century ahead, it will play even a larger part. The Adams & Westlake Company, 1150 North Michigan, Elkhart, Ind.

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MANUFACTURERS OF ADLAKE SPECIALTIES AND EQUIPMENT FOR THE RAILWAY INDUSTRY

Meetings & Conventions

(Continued from page 151)

ASSOCIATED TRAFFIC CLUBS OF AMERICA.—R. P. De Groote, Luckenbach Steamship Co., Inc., 110 S. Dearborn St., Room 1107, Chicago 3. Annual meeting, September 27-29, 1954, Kentucky Hotel, Louisville.

ASSOCIATION OF AMERICAN RAILROAD DINING CAR OFFICERS.—P. E. Griffith, 2028 Clark Ave., St. Louis 3. Annual meeting, October 12-14, 1954, Drake Hotel, Chicago.

ASSOCIATION OF AMERICAN RAILROADS.—George M. Campbell, Transportation Bldg., Washington 6, D. C.

Operations and Maintenance Department.—R. G. May, Vice-president, Transportation Bldg., Washington 6, D. C.

Operating-Transportation Division.—A. I. Ciliske, 59 E. Van Buren St., Chicago 5.

Operating Section.—H. S. Dewhurst, 59 E. Van Buren St., Chicago 5.

Transportation Section.—H. A. Eaton, 59 E. Van Buren St., Chicago 5.

Communications Section.—A. H. Grothmann, 59 E. Van Buren St., Chicago 5.

Fire Protection and Insurance Section.—W. E. Todd, 59 E. Van Buren St., Chicago 5.

Freight Loss and Damage Prevention Section.—G. H. Ruhle, 59 E. Van Buren St., Chicago 5.

Freight Station Section.—W. E. Todd, 59 E. Van Buren St., Chicago 5.

Medical and Surgical Section.—H. S. Dewhurst, 59 E. Van Buren St., Chicago 5.

Protective Section.—H. S. Dewhurst, 59 E. Van Buren St., Chicago 5.

Safety Section.—H. S. Dewhurst, 59 E. Van Buren St., Chicago 5.

Electrical Section of the Engineering and Mechanical Divisions.—S. W. Marras, 59 E. Van Buren St., Chicago 5.

Engineering Division.—E. G. Gehrke, 59 E. Van Buren St., Chicago 5.

Construction and Maintenance Section.—Neal D. Howard, 59 E. Van Buren St., Chicago 5.

Signal Section.—R. H. C. Balliet, 59 E. Van Buren St., Chicago 5.

Mechanical Division.—Fred Peronto, 59 E. Van Buren St., Chicago 5.

Purchases and Stores Division.—John L. Timanus, Transportation Bldg., Washington 6, D. C. Annual meeting, June 7-9, 1954, Palmer House, Chicago.

Freight Claim Division.—C. C. Beauprie, 59 E. Van Buren St., Chicago 5.

General Claims Division.—F. L. Johnson, Gulf, Mobile and Ohio, 104 St. Francis St., Mobile 5, Ala.

Car Service Division.—Arthur H. Gass, Chairman, Transportation Bldg., Washington 6, D. C.

Finance, Accounting, Taxation and Valuation Department.—Arthur R. Seder, Vice-president, Transportation Bldg., Washington 6, D. C.

Accounting Division.—R. E. Keefer, Transportation Bldg., Washington 6, D. C. Annual meeting, May 24-27, 1954, Shoreham Hotel, Washington, D. C.

Treasury Division.—R. E. Keefer, Transportation Bldg., Washington 6, D. C. Annual meeting, September 6-9, 1954, The Greenbrier, White Sulphur Springs, W. Va.

ASSOCIATION OF INTERSTATE COMMERCE COMMISSION PRACTITIONERS.—Miss Sarah F. McDonough, Executive Secretary, 2218 I.C.C. Building, Washington 25, D. C. Annual meeting, May 19-20, 1954, Sheraton-Plaza Hotel, Boston.

ASSOCIATION OF RAILROAD ADVERTISING MANAGERS.—A. W. Eckstein, Illinois Central, 135 E. Eleventh Pl., Chicago 5.

ASSOCIATION OF RAILWAY CLAIM AGENTS.—F. L. Johnson, Gulf, Mobile & Ohio, 104 St. Francis St., Mobile 5, Ala. Annual meeting, May 26-28, 1954, Hotel Statler, Los Angeles.

BRIDGE AND BUILDING SUPPLY ASSOCIATION.—L. R. Gurley, Modern Railroads, 201 N. Wells St., Chicago 6.

CANADIAN RAILWAY CLUB.—C. R. Crook, P. O. Box 162, Montreal 3, Que. Regular meetings, second Monday of each month, except June, July and August, Mount Royal Hotel, Montreal, Que.

CAR DEPARTMENT ASSOCIATION OF ST. LOUIS.—D. W. Kramer, 7207 W. Main St., Belleville, Ill. Regular meetings fourth Tuesday of each month except June, July and August, Hotel DeSoto.

CAR DEPARTMENT OFFICERS' ASSOCIATION.—F. H. Stremmel, 6536 Oxford Ave., Chicago 31.

CAR FOREMAN'S ASSOCIATION OF CHICAGO.—W. R. McCain, Mather Stock Car Company, 326 N. Michigan Ave., Chicago 1. Regular meetings, second Monday of each month, except June, July and August, LaSalle Hotel.

CENTRAL RAILWAY CLUB OF BUFFALO.—R. E. Mann, Hotel Statler, McKinley Square, Buffalo 5. Regular meetings, second Thursday of each month except June, July and August, Hotel Statler.

CHICAGO RAILROADS CAR ACCOUNTING OFFICERS.—W. H. Soderlund (chairman) Chicago & Eastern Illinois, 66th & Union Avenue, Chicago 21. Regular meetings, last Wednesday of each month, except July and August, Congress Hotel, at 12:30.

EASTERN ASSOCIATION OF CAR SERVICE OFFICERS.—H. C. Rochester, Canadian National, 891 Notre Dame St., West, Montreal 3, Que.

EASTERN CAR FOREMAN'S ASSOCIATION.—W. P. Dizard, 30 Church St., New York 7. Regular meet-

Photo courtesy of Southern Railway System

ings, second Friday of January, February, March, April, May, October and November, 29 W. 39th St., New York.

LOCOMOTIVE MAINTENANCE OFFICERS' ASSOCIATION.—C. M. Lipscomb, 1721 Parker St., North Little Rock, Ark.

MAINTENANCE OF WAY CLUB OF CHICAGO.—E. C. Patterson, 400 W. Madison St., Chicago 6. Regular meetings, fourth Monday of each month, October through April inclusive, except December which is third Monday, at Welty's Restaurant, Field Bldg.

MASTER BOILER MAKERS' ASSOCIATION.—A. F. Stiglmeier, 29 Parkwood St., Albany 8.

METROPOLITAN MAINTENANCE OF WAY CLUB.—John S. Vreeland, Simmons-Boardman Publishing Corp., 30 Church St., New York 7. Meets in February, April, October and December.

MILITARY RAILWAY SERVICE VETERANS.—F. W. Okie, Union R.R., Frick Bldg., P. O. Box 536, Pittsburgh. Annual meeting September 17-19, 1954, Schroeder Hotel, Milwaukee.

MISSISSIPPI VALLEY MAINTENANCE OF WAY CLUB.—P. E. Odom, 1025 Frisco Building, 906 Olive St., St. Louis. Regular meetings, second Monday of each month September through May, DeSoto Hotel, St. Louis.

NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.—Austin L. Roberts, Jr., 7413 New Post Office Bldg., P. O. Box 684, Washington 4, D. C. Annual meeting, November 8-11, 1954, Chicago.

NATIONAL ASSOCIATION OF SHIPPERS' ADVISORY BOARDS.—T. C. Burwell, A. E. Staley Mfg. Co., 22nd St., Decatur, Ill. Annual meeting, October 12-14, 1954, Brown Hotel, Louisville.

NATIONAL DEFENSE TRANSPORTATION ASSOCIATION.—Mrs. Lois C. Gebran, Suite 728, 1001 Connecticut Ave., Washington 6, D. C. Annual meeting, October 24-27, 1954, William Penn Hotel, Pittsburgh.

NATIONAL INDUSTRIAL TRAFFIC LEAGUE.—L. J. Dorr, Suite 909, Sheraton Bldg., 711 14th St., Washington 5, D. C. Annual meeting, November 18-19, 1954, Hotel Statler, New York.

NATIONAL RAILWAY APPLIANCES ASSOCIATION.—J. B. Templeton, Templeton, Kenly & Co., 1020 S. Central Ave., Chicago 44. Lewis Thomas, Asst. Secy., 59 E. Van Buren St., Chicago 5.

NATIONAL SAFETY COUNCIL, RAILROAD SECTION.—C. T. DeWitt, Northern Pacific, St. Paul 1, Minn. Annual meeting, October 19-21, 1954, Morrison Hotel, Chicago.

NEW ENGLAND RAILROAD CLUB.—William M. McCombs, 35 Lewis Wharf, Boston 10. Regular meetings, second Tuesday of each month, except May-September, incl. Hotel Vendome, Boston.

NEW YORK RAILROAD CLUB.—C. T. Stansfield, 30 Church St., New York 7. Regular meetings, third Thursday of each month except June, July, August, September and December. Century Room, Commodore Hotel. Reception, 6 p.m.; dinner, 7; meeting, 8:15.

NORTHWEST CARMEN'S ASSOCIATION.—N. J. Maglich, Minnesota Transfer Ry., 2071 University Ave., St. Paul 4, Minn. Regular meetings, first Monday of each month, except June, July, and August, Midway Club, 1931 University Ave., St. Paul.

NORTHWEST LOCOMOTIVE ASSOCIATION.—R. M. Wigfield, Northern Pacific, Room 1134, G. O. Bldg., St. Paul 1, Minn. Regular meetings, third Monday of each month, except June, July and August, Midway Club, 1931 University Ave., St. Paul.

PACIFIC RAILWAY CLUB.—S. E. Byler, 121 E. Sixth St., Los Angeles 14. Regular meetings, second Thursday of each alternate month at Sir Francis Drake Hotel, San Francisco, and Elks' Temple, Los Angeles.

RAILROAD PUBLIC RELATIONS ASSOCIATION.—J. Don Parel, Association of American Railroads, Transportation Bldg., Washington 6, D. C. Annual meeting, June 14-15, 1954, Waldorf Astoria Hotel, New York.

RAILWAY BUSINESS ASSOCIATION.—P. H. Middleton, 38 S. Dearborn St., Chicago 3.

RAILWAY CLUB OF PITTSBURGH.—G. E. Morrison, 2710 Koppers Bldg., Pittsburgh 19. Regular meetings third Thursday of each month, except June-September, incl., and December, Fort Pitt Hotel.

RAILWAY ELECTRIC SUPPLY MANUFACTURERS' ASSOCIATION.—J. McC. Price, Allen-Bradley Company, 445-447 N. La Salle St., Chicago 10.

RAILWAY FUEL AND TRAVELING ENGINEERS' ASSOCIATION.—L. H. Peters, New York Central, Room 1213, 139 W. Van Buren St., Chicago 5.

RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION.—A. W. Brown, 60 E. 42nd St., New York 17.

RAILWAY SYSTEMS AND PROCEDURES ASSOCIATION.—J. W. Milliken, *Railway Age*, 30 Church St., New York 7. Next meeting, November 16-18, 1954, Hotel Morrison, Chicago.

RAILWAY TELEGRAPH AND TELEPHONE APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York 7. Meets with Communications Section of A.A.R.

RAILWAY TIE ASSOCIATION.—Roy M. Edmonds, 1221 Locust St., St. Louis 3. Annual meeting, October 20-22, 1954, Mayflower Hotel, Washington, D. C.

ROADMASTERS AND MAINTENANCE OF WAY ASSOCIATION.—Miss Elise La Chance, Room 901, 431 S. Dearborn St., Chicago 5. Annual meeting, September 13-15, 1954, Conrad Hilton Hotel, Chicago.

ST. LOUIS RAILROAD DIESEL CLUB.—F. C. Whitlock, Terminal Railroad Association of St. Louis, 376 Union Station, St. Louis 3. Regular meetings second Tuesday of each month, Hotel York. Dinner, 6:45 p.m., meeting, 8.

(*Continued on page 156*)

✓ CLEAN
✓ CONVENIENT
✓ ECONOMICAL
✓ EASY TO HANDLE
✓ EASY TO CONTROL
✓ VERY LITTLE DRAFT REQUIRED
✓ NO OBJECTIONABLE BACK GAS
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FOR DINING CAR USE, Pres-to-logs are a perfect fuel. Railroads have used—and continue to use—these compressed sawdust logs because of their many advantages in the preparation of good food.

Pres-to-logs are clean, easy to handle, and require very little storage space. They are long burning, and furnish steady, intense heat. A minimum of draft is needed, and there is no objectionable back gas. Cooks find Pres-to-logs excellent for short orders as well as all other cooking.

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Please send me names of Pres-to-logs manufacturers in this area.

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COMPANY _____

ADDRESS _____

CITY _____

ZONE _____ STATE _____

Meetings & Conventions

(Continued from page 154)

Signal Appliance Association.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York 7. Meets with A.A.R. Signal Section.

Southeastern Railway Diesel Club.—H. W. Brewer, Seaboard Air Line, P. O. Box 6204, Jacksonville, Fla. Regular meetings, second Tuesday in February, April, June, August, October and December, 9:30 a.m., Mayflower Hotel, Jacksonville.

Southern and Southwestern Railway Club.—A. T. Miller, 4 Hunter St., S. E., Atlanta. Regular meetings, third Thursday in January, March, May, July, September and November, Ansley Hotel, Atlanta.

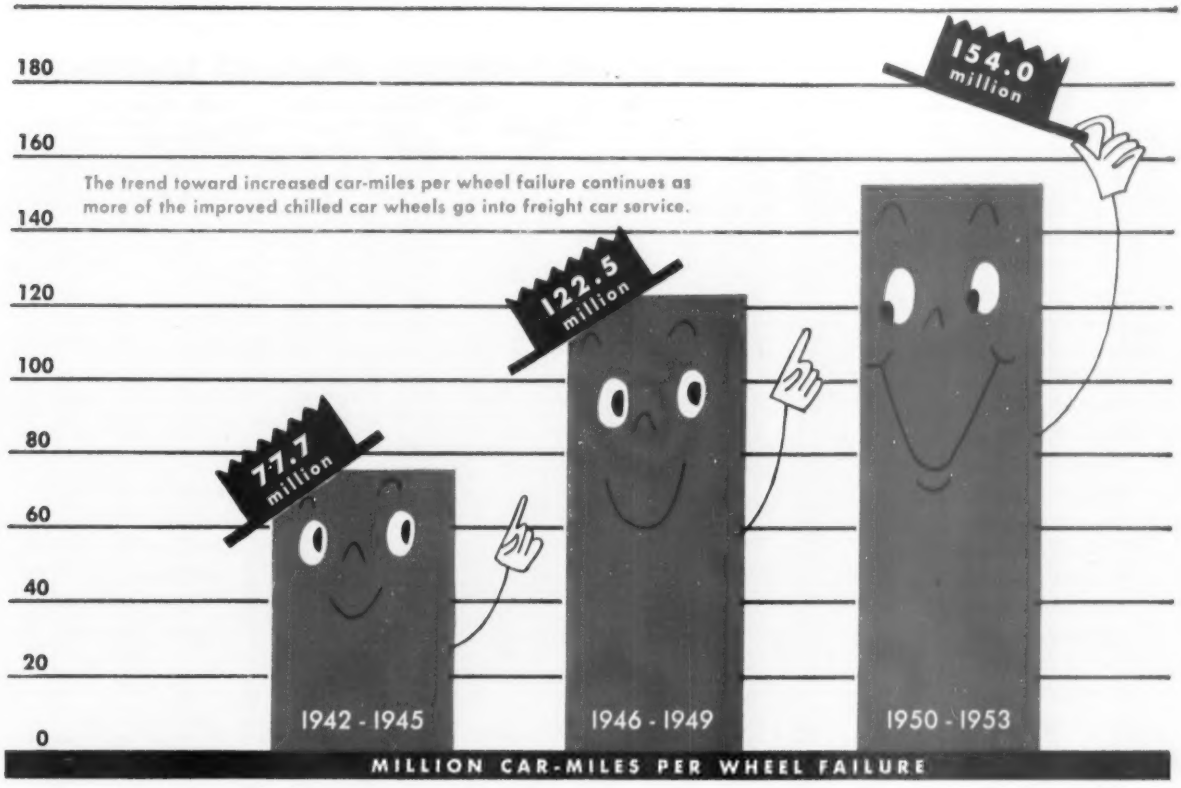
Southern Association of Car Service Officers.—F. I. Umhau, Southern Ry., Atlanta 3.

Toronto Railway Club.—H. Sommerville, P. O. Box 8, Terminal "A," Toronto 2, Ont. Regular meetings, fourth Monday of each month, except February, June, July, August and December, Royal York Hotel.

Track Supply Association.—Lewis Thomas, Q and C Company, 59 E. Van Buren St., Chicago 5.

Western Association of Railway Tax Commissioners.—L. R. Norberg, 516 W. Jackson Blvd., Chicago 6. Regular meetings, 12:35 p.m., first Wednesday of each month, except July and August, Traffic Club, Palmer House, Chicago.

Western Railway Club.—E. E. Thulin, Suite 339, Hotel Sherman, Chicago 1.



Another safety performance record for AMCCW Chilled car wheels!

The AMCCW chilled car wheel that established a new high in safety performance in 1953. This design adopted by the AAR in 1950 puts more brackets, thicker, heavier, more continuous flange support and heavier tread into the AMCCW chilled car wheel.

The bar chart tells a story of continuous improvement in the performance of chilled car wheels over the past dozen years. Figures are based on ICC records of car-miles per wheel failure.

1942-1945	**77,700,000 car-miles**
1946-1949	**122,500,000 car-miles**
1950-1953	**154,000,000 car-miles**

What this grouping of records into four-year periods does not show is that the year 1953 was 50% better than any other year since records have been kept; a product performance story that is the more remarkable in view of the increased speeds and increased loadings in modern freight service.

Matter of fact, the whole story is even better. When derailments caused by loose wheels and worn flanges are taken into consideration, the AMCCW chilled car wheel has the best safety record of any type of wheel in freight car service.

The record for the freight cars you now equip with new AMCCW chilled car wheels could readily exceed the safety performance illustrated above, because the graphs are based on average performance of old type as well as new improved chilled car wheels.

Low first cost • Low exchange rates • Reduced inventory • Short haul delivery • Increased ton mileage • High safety standards • Complete AMCCW inspection • Easier shop handling

ASSOCIATION OF MANUFACTURERS OF CHILLED CAR WHEELS

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Albany Car Wheel Co. • American Car & Foundry Co. • Marshall Car Wheel & Foundry Co. Southern Wheel (American Brake Shoe Co.) • Griffin Wheel Co. • Pullman Standard Car Mfg. Co.

Freight Operating Statistics of Large Railways — Selected Items

Region, Road and Year		Miles of road operated	Locomotive Miles: Train-miles	Locomotive Miles: Principal and helper	Locomotive Miles: Light	Car Miles: Loaded (*thousands*)	Car Miles: Per cent loaded	Ton-miles (*thousands*): Gross excl.locos & tenders	Ton-miles (*thousands*): Net rev. and non-rev.	Road locos. on lines: Serviceable: Unstored	Road locos. on lines: Serviceable: Stored	Road locos. on lines: B.O.	Road locos. on lines: Per cent B.O.
New Eng. Region	Boston & Maine	1954	1,665	235,753	240,835	8,974	8,920	64.7	586,211	228,479	76	1	5	6.1
		1953	1,668	242,234	249,599	12,185	9,600	67.9	605,264	240,516	87	8	14	12.8
	N. Y., N. H. & Htfd	1954	1,748	261,945	261,951	16,065	10,735	66.9	666,821	266,975	85	..	9	9.6
		1953	1,764	276,757	276,891	21,783	11,025	70.5	675,352	290,129	88	..	4	4.3
Great Lakes Region	Delaware & Hudson	1954	793	182,090	186,590	9,424	8,587	65.0	605,923	302,028	38	..	5	11.6
		1953	793	193,288	200,133	12,645	9,354	67.5	652,190	327,327	43	23	13	16.5
	Del., Lack. & Western	1954	962	245,774	258,620	18,303	10,500	66.2	685,851	288,689	65	..	1	1.5
		1953	962	249,779	264,290	21,777	11,302	69.4	729,747	322,929	74	3	..	..
	Erie	1954	2,224	489,138	492,349	18,635	27,474	69.0	1,676,478	674,712	162	..	6	3.6
		1953	2,237	526,141	530,257	24,010	30,759	70.4	1,871,321	781,524	170	..	1	.6
	Grand Trunk Western	1954	952	243,930	249,578	2,100	8,219	59.4	588,592	241,967	57	2	18	23.4
		1953	952	248,588	253,865	2,031	8,482	63.0	583,905	246,960	67	1	11	13.9
	Lehigh Valley	1954	1,150	189,543	192,593	6,061	9,261	65.3	616,169	270,578	29	4	1	2.9
		1953	1,202	197,703	201,393	6,640	10,219	70.1	659,568	304,563	28	3	1	3.1
	New York Central	1954	10,663	2,224,997	2,264,051	86,223	86,837	58.6	6,258,157	2,647,124	629	91	177	19.7
		1953	10,665	2,482,287	2,552,206	106,788	98,883	61.3	6,998,104	3,046,036	758	72	240	22.4
	New York, Chic. & St. L.	1954	2,161	632,630	654,354	6,362	24,563	62.5	1,729,229	707,589	177	37	33	13.4
		1953	2,160	732,860	756,788	8,270	28,013	65.2	1,973,304	837,765	197	10	40	16.2
	Pitts. & Lake Erie	1954	221	51,012	51,404	....	2,115	57.1	189,077	107,696	15	11	7	21.2
		1953	221	74,129	76,085	154	3,152	63.8	270,997	162,257	26	4	6	16.7
	Wabash	1954	2,381	489,745	491,212	6,366	21,188	65.4	1,376,731	532,476	107	2	..	..
		1953	2,381	465,110	469,100	7,517	21,327	70.1	1,338,037	555,207	114	28	21	12.9
Central Eastern Region	Baltimore & Ohio	1954	6,077	1,307,073	1,430,854	121,814	51,868	59.7	3,871,434	1,782,516	423	89	133	20.6
		1953	6,081	1,451,431	1,604,188	143,009	58,881	63.2	4,351,281	2,089,411	502	60	155	21.6
	Central of New Jersey	1954	209	36,571	37,368	91	1,321	59.6	140,949	84,657	11	4	1	6.3
		1953	213	40,437	40,539	278	1,724	58.6	180,484	105,968	10	26	4	10.0
	Central of Pennsylvania	1954	613	113,966	118,213	8,692	4,345	63.8	328,012	168,155	61	3	8	11.1
		1953	617	118,713	123,844	10,999	4,425	66.8	319,527	159,204	73	5	7	8.2
	Chicago & Eastern Ill.	1954	868	110,651	110,651	2,273	4,516	64.6	316,816	153,257	25	..	2	7.4
		1953	868	115,034	115,034	2,259	4,798	66.3	323,520	153,703	26	..	3	10.3
	Elgin, Joliet & Eastern	1954	236	81,799	82,040	....	2,533	62.2	201,953	106,626	34	4	3	7.3
		1953	236	96,258	97,100	168	3,140	64.1	248,181	132,510	40	..	1	2.4
	Pennsylvania System	1954	9,906	2,417,952	2,589,615	194,191	99,930	61.1	7,216,537	3,182,215	780	342	359	24.2
		1953	9,945	2,775,852	2,962,763	252,285	116,248	64.7	8,185,618	3,782,409	933	170	407	27.9
	Reading	1954	1,305	295,302	302,399	10,613	11,405	60.2	908,624	462,320	169	39	17	7.6
		1953	1,309	337,668	344,627	19,090	12,805	62.4	1,006,664	520,103	174	14	20	9.6
	Western Maryland	1954	857	146,469	155,114	9,758	5,377	61.1	449,068	244,979	63	23	3	3.4
		1953	873	175,908	201,530	22,944	6,108	63.3	505,163	282,743	119	2	10	7.6
Pocahontas Region	Chesapeake & Ohio	1954	5,023	1,095,933	1,117,163	28,337	44,201	57.1	3,643,294	1,954,942	349	105	152	25.1
		1953	5,036	1,105,451	1,128,866	31,089	47,314	57.9	3,924,499	2,105,327	371	75	193	30.2
	Norfolk & Western	1954	2,113	543,298	571,060	38,044	23,929	58.7	2,105,783	1,107,012	209	44	22	8.0
		1953	2,113	595,357	615,446	42,329	26,223	59.4	2,260,382	1,196,418	220	35	19	6.9
Southern Region	Atlantic Coast Line	1954	5,354	756,595	756,595	9,487	24,996	56.8	1,854,292	797,059	239	..	6	2.4
		1953	5,367	820,940	820,940	10,058	26,608	59.5	1,918,377	849,657	246	..	3	1.2
	Central of Georgia	1954	1,731	182,440	182,464	2,387	6,924	67.1	471,871	220,724	67	..	2	2.9
		1953	1,754	193,388	201,551	2,985	7,340	66.7	502,423	234,312	79	15	..	..
	Gulf, Mobile & Ohio	1954	2,718	274,208	274,208	171	14,993	65.4	1,036,670	476,335	85	..	4	4.5
		1953	2,718	292,912	292,912	262	15,768	70.5	1,034,252	488,763	84	..	5	5.6
	Illinois Central	1954	6,537	1,232,354	1,233,623	41,868	45,253	61.9	3,246,972	1,454,402	501	53	86	13.4
		1953	6,539	1,425,114	1,429,296	48,439	50,425	62.7	3,583,736	1,609,890	561	4	74	11.6
	Louisville & Nashville	1954	4,722	816,210	841,422	16,896	28,736	61.1	2,152,651	1,060,666	226	62	56	16.3
		1953	4,728	896,385	939,451	21,939	32,212	63.8	2,335,908	1,164,941	271	42	37	10.6
	Nash., Chatt. & St. Louis	1954	1,032	170,031	174,718	4,142	5,698	65.4	390,982	179,158	48	..	5	9.4
		1953	1,032	191,572	196,046	3,409	6,423	71.3	422,072	202,496	51	..	2	3.8
	Seaboard Air Line	1954	4,067	602,400	602,400	1,959	24,096	60.9	1,754,972	758,912	143	..	6	4.0
		1953	4,070	641,727	641,727	1,552	25,278	63.6	1,802,544	792,229	160	61	4	1.8
	Southern	1954	6,262	873,268	873,308	10,420	37,048	65.2	2,445,366	1,085,548	257	6	2	.8
		1953	6,263	937,320	937,330	10,886	37,933	69.5	2,398,437	1,088,258	247	28	20	6.8
Northwestern Region	Chicago & North Western	1954	7,850	624,332	626,118	10,114	25,990	63.7	1,799,796	805,690	174	39	91	29.9
		1953	7,849	669,641	672,870	16,195	28,411	67.8	1,876,532	880,741	264	43	100	24.6
	Chicago Great Western	1954	1,437	122,213	122,213	141	7,128	68.4	469,678	208,964	32	..	1	3.0
		1953	1,435	86	86	330	8	76.5	796	516	..	31	3	8.8
	Chic., Milw., St. P. & Pac.	1954	10,631	907,797	926,462	25,189	38,225	63.5	2,622,454	1,150,333	319	85	52	11.4
		1953	10,662	971,943	999,006	33,949	43,252	67.7	2,847,743	1,277,000	340	100	70	13.7
	Chic., St. P., Minn. & Omaha	1954	1,606	160,431	161,961	5,190	5,052	61.7	365,976	157,268	59	6	18	21.7
		1953	1,606	169,894	174,841	8,128	5,468	67.5	367,529	163,278	67	..	19	22.1
	Duluth, Missabe & Iron Range	1954	569	32,085	32,329	304	528	53.5	40,221	19,363	29	29	30	34.1
		1953	567	35,019	35,376	597	715	53.5	62,550	30,889	34	22	19	25.3
	Great Northern	1954	8,293	1,001,200	1,005,969	32,162	36,939	62.9	2,695,050	1,208,893	262	173	47	9.8
		1953	8,291	992,573	995,014	34,084	36,871	68.0	2,510,854	1,142,812	296	151	60	11.8
	Minneap., St. P. & S. S. M.	1954	4,169	344,068	346,456	5,122	10,890	66.4	709,697	324,845	96	6	18	15.0
		1953	4,172	369,070	373,968	3,567	12,251	68.2	788,322	366,893	106	6	12	9.7
	Northern Pacific	1954	6,570	718,453	737,446	25,107	27,812	69.1	1,888,968	860,666	304	52	62	14.8
		1953	6,585	740,878	767,558	28,343	29,860	71.7	2,006,662	953,780	306	30	66	16.4
Central Western Region	Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.)	1954	13,070	1,935,040	1,979,025	44,613	86,520	65.8	5,765,651	2,272,607	511	166	36	5.0
		1953	13,094	2,288,321	2,393,015	88,952	103,628	68.5	6,702,789	2,677,128	556	122	72	9.6
	Chic., Burl. & Quincy	1954	8,832	1,009,198	1,009,490	30,566	42,880	67.3	2,816,452	1,250,936	263	71	34	9.2
		1953	8,833	1,071,870	1,073,688	42,226	45,190	67.7	2,941,221	1,329,810	319	53	102	21.5
	Chic., Rock I. & Pac.	1954	7,861	841,340	841,893	2,766	33,095	59.7	2,406,594	960,546	172	1	10	5.5
		1953	7,901	953,293	953,429	7,575	39,774	63.5	2,739,582	1,119,886	175	6	20	10.0
	Denver & R. G. Wn.	1954	2,167	231,342	247,047	20,791	11,225	72.6	760,627	373,888	56	59	22	16.1
		1953	2,333	286,894	312,507	33,808	13,518	69.8	943,688	453,948	80	35	43	27.2
	Southern Pacific	1954	8,065	1,757,638	1,840,812	200,464	78,364	63.2	5,395,079	2,226,280	520	164	134	16.4
		1953	8,058	1,997,699	2,097,654	239,681	87,882	64.6	5,932,500	2,449,809	708	30	140	15.9
	Union Pacific	1954	9,821	2,033,079	2,084,704	114,280	85,751	65.0	5,806,779	2,440,929	480	233	145	16.9
		1953	9,823	2,252,910	2,340,942	165,973	91,693	65.1	6,262,028	2,688,525	573	103	119	15.0
	Western Pacific	1954	1,190	182,138	184,242	12,517	8,124	71.2	531,868	246,305	38	5	2	4.4
		1953	1,190	224,974	230,608	27,037	10,452	68.2	719,370	333,570	37	9	5	9.8
Southwestern Region	International-Gt. Northern*	1954	1,103	129,811	129,811	162	4,711	64.5	338,997	154,241	44	..	2	4.3
		1953	1,104	156,530	156,530		6,170	64.8	449,396	197,801	50	7	3	5.0
	Kansas City Southern	1954	886	139,985	140,046	249	7,527	65.7	533,695	242,430	25	..	1	3.8
		1953	886	171,748	171,756	90	9,000	67.7	632,434	300,146	24	2	3	10.3
	Mo.-Kans.-Texas Lines	1954	3,230	323,093	323,093	3,455	12,654	63.7	826,990	347,883	88	..	..	..
		1953	3,230	376,013	376,013	4,535	15,164	63.9	977,211	404,730	91	12	8	7.2
	Missouri Pacific*	1954	6,904	1,026,155	1,028,448	11,929	40,853	65.8	2,766,626	1,204,029	274	25	89	22.9
		1953	6,917	1,142,000	1,145,674	14,606	45,209	66.3	3,018,939	1,303,820	297	29	46	12.4
	Texas & Pacific	1954	1,827	298,312	298,312	3,947	13,616	61.5	968,278	352,155	62	..	..	..
		1953	1,831	361,530	361,530	3,486	15,246	59.9	1,089,269	398,692	59	..	..	..
	St. Louis-San Francisco	1954	4,564	577,591	578,535	5,554	22,730	64.0	1,546,145	673,943	189	..	4	2.1
		1953	4,567	585,620	586,619	5,613	23,656	65.5	1,567,190	680,733	185	..	4	2.1
	St. Louis Southw. Lines	1954	1,555	279,401	279,437	3,790	13,369	67.9	831,042	371,487	54	14	2	2.9
		1953	1,561	320,900	320,912	4,387	15,531	72.9	932,874	417,008	61	20	5	5.8
	Texas & New Orleans	1954	4,279	633,360	633,360	10,538	24,530	62.0	1,720,215	720,305	166	..	38	18.6
		1953	4,279	781,970	786,740	17,833	29,014	63.6	2,004,112	849,708	207	..	28	11.9

For the Month of February 1954 Compared with February 1953

Region	Road	Year	Freight cars on line: Home	Foreign	Total	Per Cent B.O.	G.t.m.per train-hr. excl.locos. and tenders	G.t.m.per train-mi. excl.locos. and tenders	Net ton-mi. per train-mile	Net ton-mi. per l'd car-mile	Net ton-mi. per car-day	Car miles per car-day	Net daily ton-mi. per road-mi.	Train-miles per train-hour	Miles per loco. per day
New Eng. Region	Boston & Maine	1954	2,802	7,241	10,043	3.4	41,268	2,493	972	25.6	803	48.5	4,901	16.6	123.3
		1953	1,511	7,707	9,218	3.2	42,190	2,502	994	25.1	910	53.5	5,150	16.9	94.5
	N. Y., N. H. & Htfd.	1954	2,951	13,092	16,043	2.7	43,362	2,546	1,019	24.9	589	35.4	5,455	17.0	126.4
		1953	1,835	13,260	15,095	2.9	38,477	2,440	1,048	26.3	695	37.4	5,874	15.8	131.8
Great Lakes Region	Delaware & Hudson	1954	7,451	4,492	11,943	4.4	62,564	3,345	1,668	35.2	953	41.7	13,602	18.8	174.2
		1953	7,018	4,685	11,703	5.5	66,031	3,390	1,702	35.0	1,027	43.5	14,742	19.6	104.2
	Del., Lack. & Western	1954	8,491	8,089	16,580	4.3	50,661	2,831	1,192	27.5	617	33.9	10,718	18.2	166.1
		1953	6,487	8,494	14,981	4.9	52,207	2,970	1,314	28.6	749	37.8	11,989	17.9	149.0
	Erie	1954	12,848	13,394	26,242	5.4	64,644	3,453	1,390	24.6	939	55.4	10,835	18.9	119.5
		1953	10,606	18,875	29,481	2.9	65,033	3,589	1,499	25.4	956	53.4	12,477	18.3	127.3
	Grand Trunk Western	1954	3,867	8,183	12,050	4.6	51,370	2,425	997	29.4	707	40.4	9,077	21.3	123.6
		1953	3,157	7,884	11,041	5.0	48,663	2,367	1,001	29.1	760	41.4	9,265	20.7	125.1
	Lehigh Valley	1954	9,033	6,864	15,897	5.9	67,890	3,271	1,436	29.2	605	31.7	8,403	20.9	222.5
		1953	7,613	8,623	16,236	4.7	70,092	3,359	1,551	29.8	729	34.9	9,049	21.0	240.7
	New York Central	1954	86,440	77,539	163,979	8.5	49,862	2,854	1,207	30.5	572	32.0	8,866	17.7	107.1
		1953	73,313	89,863	163,176	7.9	48,738	2,868	1,248	30.8	680	36.0	10,200	17.3	99.2
	New York, Chic. & St. L.	1954	10,299	12,849	23,148	6.4	51,454	2,766	1,132	28.8	1,064	59.1	11,694	18.8	104.7
		1953	8,329	16,913	25,242	4.9	49,683	2,726	1,157	29.9	1,179	60.5	13,852	18.5	120.3
	Pitts. & Lake Erie	1954	6,768	5,901	12,669	6.6	57,002	3,715	2,116	50.9	277	9.5	17,404	15.4	60.1
		1953	4,857	9,143	14,000	7.5	51,806	3,663	2,193	51.5	414	12.6	26,221	14.2	73.3
	Wabash	1954	9,536	9,717	19,253	8.5	66,336	2,824	1,092	25.1	963	58.6	7,987	23.6	174.6
		1953	7,846	10,347	18,193	9.6	65,648	2,901	1,204	26.0	1,052	57.7	8,328	22.8	108.2
Central Eastern Region	Baltimore & Ohio	1954	55,615	33,633	89,248	7.2	47,059	2,993	1,378	34.4	692	33.8	10,476	15.9	89.9
		1953	56,040	40,918	96,958	6.7	45,552	3,035	1,457	35.5	763	34.0	12,271	15.2	91.2
	Central of New Jersey	1954	9,027	474	9,501	8.2	62,394	4,020	2,415	64.1	334	8.7	14,466	16.2	96.4
		1953	7,766	1,589	9,355	6.0	66,379	4,687	2,752	61.5	405	11.3	17,768	14.9	42.0
	Central of Pennsylvania	1954	5,407	8,898	14,305	10.7	40,391	3,011	1,544	38.7	433	17.5	9,797	14.0	80.8
		1953	4,488	9,735	14,223	7.3	37,385	2,849	1,420	36.0	400	16.7	9,215	13.9	80.8
	Chicago & Eastern Ill.	1954	3,413	2,722	6,135	5.3	49,924	2,875	1,391	33.9	921	42.0	6,306	17.4	163.3
		1953	3,000	3,810	6,810	5.4	48,193	2,831	1,345	32.0	799	37.6	6,324	17.1	161.6
	Elgin, Joliet & Eastern	1954	6,777	8,214	14,991	5.5	22,367	2,599	1,372	42.1	248	9.5	16,136	9.1	94.0
		1953	7,635	11,494	19,129	4.5	20,596	2,692	1,438	42.2	240	8.9	20,053	8.0	109.9
	Pennsylvania System	1954	109,060	94,616	203,676	8.9	54,069	3,071	1,354	31.8	557	28.6	11,473	18.1	73.0
		1953	104,706	96,254	200,960	9.0	51,115	3,026	1,398	32.5	672	31.9	13,583	17.3	83.3
	Reading	1954	20,696	13,482	34,178	6.1	44,932	3,081	1,567	40.5	484	19.8	12,652	14.6	59.1
		1953	18,104	16,673	34,777	5.7	41,340	2,982	1,541	40.6	527	20.8	14,190	13.9	75.6
	Western Maryland	1954	8,344	2,763	11,107	4.6	44,248	3,117	1,701	45.6	830	29.8	10,209	14.4	72.9
		1953	7,559	2,955	10,514	3.5	42,048	2,933	1,641	46.3	1,007	34.4	11,567	14.6	65.4
Pocahontas Region	Chesapeake & Ohio	1954	59,671	18,475	78,146	4.1	63,511	3,342	1,793	44.2	910	36.0	13,900	19.1	72.4
		1953	57,287	20,161	77,448	2.7	64,753	3,568	1,914	44.5	977	37.9	14,931	18.2	69.9
	Norfolk & Western	1954	43,369	5,966	49,335	2.3	68,265	3,941	2,072	46.3	825	30.4	18,711	17.6	86.1
		1953	38,139	6,979	45,118	2.7	66,570	3,925	2,078	45.6	963	35.5	20,222	17.2	93.9
Southern Region	Atlantic Coast Line	1954	21,825	16,301	38,126	2.0	41,823	2,467	1,061	31.9	764	42.2	5,317	17.1	124.9
		1953	16,766	19,814	36,580	2.0	38,536	2,346	1,039	31.9	829	43.6	5,654	16.5	133.6
	Central of Georgia	1954	4,232	5,227	9,459	3.4	47,032	2,595	1,214	31.9	846	39.6	4,554	18.2	103.5
		1953	3,219	6,411	9,630	4.1	45,121	2,611	1,218	31.9	875	41.1	4,771	17.4	87.8
	Gulf, Mobile & Ohio	1954	6,740	9,040	15,780	3.7	76,304	3,784	1,739	31.8	1,075	51.7	6,259	20.2	117.6
		1953	4,803	9,518	14,321	2.8	72,204	3,546	1,676	31.0	1,217	55.7	6,422	20.4	125.4
	Illinois Central	1954	35,097	18,778	53,875	3.4	46,484	2,672	1,197	32.1	963	48.5	7,946	17.6	76.7
		1953	27,179	25,070	52,249	2.0	44,460	2,551	1,146	31.9	1,097	54.8	8,793	17.7	88.5
	Louisville & Nashville	1954	41,597	11,881	53,478	3.1	45,992	2,645	1,303	36.9	733	32.5	8,022	17.4	95.0
		1953	37,377	14,615	51,992	3.1	43,251	2,611	1,302	36.2	796	34.5	8,800	16.6	107.3
	Nash., Chatt. & St. Louis	1954	4,302	3,896	8,198	2.5	45,274	2,306	1,057	31.4	786	38.2	6,200	19.7	129.0
		1953	2,486	4,919	7,405	2.7	44,944	2,205	1,058	31.5	1,007	44.8	7,008	20.4	144.2
	Seaboard Air Line	1954	14,322	14,403	28,725	2.2	53,657	2,955	1,278	31.5	959	50.0	6,664	18.4	171.5
		1953	11,276	16,286	27,562	2.1	51,656	2,845	1,250	31.3	1,017	51.0	6,952	18.4	119.6
	Southern	1954	20,491	25,146	45,637	2.8	49,267	2,811	1,248	29.3	875	45.8	6,191	17.6	129.8
		1953	16,618	27,946	44,564	3.8	43,890	2,574	1,168	28.7	875	43.8	6,206	17.2	123.9
Northwestern Region	Chicago & North Western	1954	21,742	26,687	48,429	5.5	50,898	2,951	1,321	31.0	605	30.6	3,666	17.7	81.4
		1953	18,219	27,573	45,792	4.5	49,236	2,895	1,359	31.0	686	32.7	4,008	17.6	66.7
	Chicago Great Western	1954	1,887	3,861	5,748	3.6	73,330	3,868	1,721	29.3	1,271	63.4	5,193	19.1	137.8
		1953	1,500	2,161	3,661	5.0	159,156	9,256	5,997	59.3	2,073	1	12	17.5	12.2
	Chic., Milw., St. P. & Pac.	1954	37,951	28,724	66,675	6.2	53,141	2,900	1,272	30.1	631	33.0	3,864	18.4	80.3
		1953	33,570	33,696	67,266	3.6	51,160	2,946	1,321	29.5	684	34.3	4,278	17.5	78.6
	Chic., St. P., Minn. & Omaha	1954	1,155	7,118	8,273	4.8	35,778	2,306	991	31.1	676	35.2	3,497	15.7	80.9
		1953	1,236	8,217	9,453	3.5	32,687	2,242	996	29.9	637	31.6	3,631	15.1	83.3
	Duluth, Missabe & Iron Range	1954	14,957	590	15,547	2.5	19,421	1,338	644	36.7	44	2.3	1,215	15.5	16.1
		1953	11,799	776	12,575	4.3	25,583	1,931	954	43.2	88	3.8	1,946	14.3	20.6
	Great Northern	1954	25,414	23,404	48,818	2.9	49,479	2,708	1,215	32.7	915	44.4	5,206	18.4	83.3
		1953	22,577	20,275	42,852	5.2	46,756	2,544	1,158	31.0	979	46.4	4,923	18.5	76.9
	Minneap., St. P. & S. S. M.	1954	7,582	6,360	13,942	5.8	41,593	2,067	946	29.8	834	42.1	2,783	20.2	114.9
		1953	6,130	9,260	15,390	5.4	41,591	2,147	999	29.9	863	42.2	3,141	19.5	116.1
	Northern Pacific	1954	22,769	14,817	37,586	5.2	51,821	2,642	1,204	30.9	828	38.7	4,679	19.7	70.3
		1953	19,339	15,740	35,079	3.8	51,367	2,727	1,296	31.9	960	42.0	5,173	19.0	76.5
Central Western Region	Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.)	1954	55,258	30,416	85,674	3.0	70,137	2,988	1,178	26.3	912	52.8	6,210	23.5	107.0
		1953	48,589	32,902	81,491	4.2	66,993	2,940	1,174	25.8	1,171	66.2	7,302	22.9	123.4
	Chic., Burl. & Quincy	1954	21,952	20,576	42,528	3.0	58,290	2,795	1,241	29.2	1,045	53.2	5,858	20.9	102.2
		1953	18,162	23,302	41,464	3.3	55,479	2,749	1,243	29.4	1,127	56.6	5,377	20.2	87.9
	Chic., Rock I. & Pac.	1954	13,964	22,243	36,207	3.9	56,166	2,867	1,144	29.0	976	56.4	4,364	19.6	174.3
		1953	12,904	23,733	36,637	3.3	35,356	2,890	1,181	28.2	1,108	62.0	5,062	19.3	167.3
	Denver & R. G. Wn.	1954	8,884	3,861	12,745	3.0	63,854	3,297	1,621	33.3	1,053	43.5	6,162	19.4	73.7
		1953	7,294	7,174	14,468	3.7	60,828	3,293	1,584	33.6	1,093	46.6	6,949	18.5	85.1
	Southern Pacific	1954	33,040	33,822	66,862	2.3	60,629	3,098	1,278	28.4	1,192	66.4	9,859	19.8	95.2
		1953	29,774	48,060	77,834	2.1	53,584	2,997	1,238	27.9	1,169	64.9	10,858	18.0	101.2
	Union Pacific	1954	33,257	27,948	61,205	2.4	74,704	2,890	1,215	28.5	1,430	77.3	8,877	26.2	94.4
		1953	30,705	33,276	63,981	2.6	67,747	2,816	1,209	29.3	1,499	78.5	9,775	24.4	115.7
	Western Pacific	1954	2,714	2,400	5,114	5.2	74,585	2,938	1,361	30.3	1,810	83.8	7,392	25.5	163.0
		1953	2,649	3,388	6,037	5.1	77,921	3,216	1,491	31.9	1,836	84.4	10,011	24.4	173.6
Southwestern Region	International-Gt. Northern*	1954	917	5,201	6,118	3.9	54,898	2,617	1,191	32.7	837	39.7	4,994	21.0	94.3
		1953	966	7,919	8,885	2.9	58,356	2,877	1,266	32.1	780	37.6	6,399	20.3	99.1
	Kansas City Southern	1954	1,231	6,042	7,273	1.9	78,346	3,819	1,735	32.2	1,226	57.9	9,772	20.5	210.9
		1953	1,141	6,599	7,740	4.3	76,399	3,735	1,773	33.3	1,376	60.9	12,099	20.7	204.7
	Mo.-Kans.-Texas Lines	1954	5,110	6,344	11,454	5.4	54,612	2,565	1,079	27.5	1,067	60.9	3,847	21.3	143.8
		1953	4,315	7,599	11,914	4.9	54,921	2,606	1,079	26.7	1,204	70.6	4,475	21.1	133.4
	Missouri Pacific*	1954	20,013	13,911	33,924	3.0	61,110	2,706	1,178	29.5	1,254	64.7	6,228	22.7	102.6
		1953	17,254	17,098	34,352	2.9	59,838	2,658	1,148	28.8	1,339	70.0	6,732	22.6	116.6
	Texas & Pacific	1954	3,645	6,222	9,867	3.6	74,300	3,253	1,183	25.9	1,257	79.0	6,884	22.9	185.0
		1953	3,251	7,859	11,110	3.8	68,109	3,015	1,104	26.2	1,310	83.6	7,777	22.6	211.0
	St. Louis-San Francisco	1954	17,242	13,562	30,804	2.3	50,498	2,681	1,168	29.6	805	42.4	5,274	18.9	119.6
		1953	11,964	12,298	24,262	3.1	48,978	2,684	1,166	28.8	1,015	53.8	5,323	18.3	123.6
	St. Louis Southw. Lines	1954	2,642	4,328	6,970	2.7	60,488	2,976	1,331	27.8	1,878	99.6	8,532	20.3	151.6
		1953	2,375	4,763	7,138	1.8	61,297	2,908	1,300	26.9	1,973	100.8	9,541	21.1	140.5
	Texas & New Orleans	1954	7,464	15,479	22,943	1.6	55,201	2,734	1,145	29.4	1,130	62.1	6,012	20.3	121.2
		1953	6,476	16,435	22,911	1.1	50,991	2,581	1,094	29.3	1,320	70.9	7,092	19.9	128.7

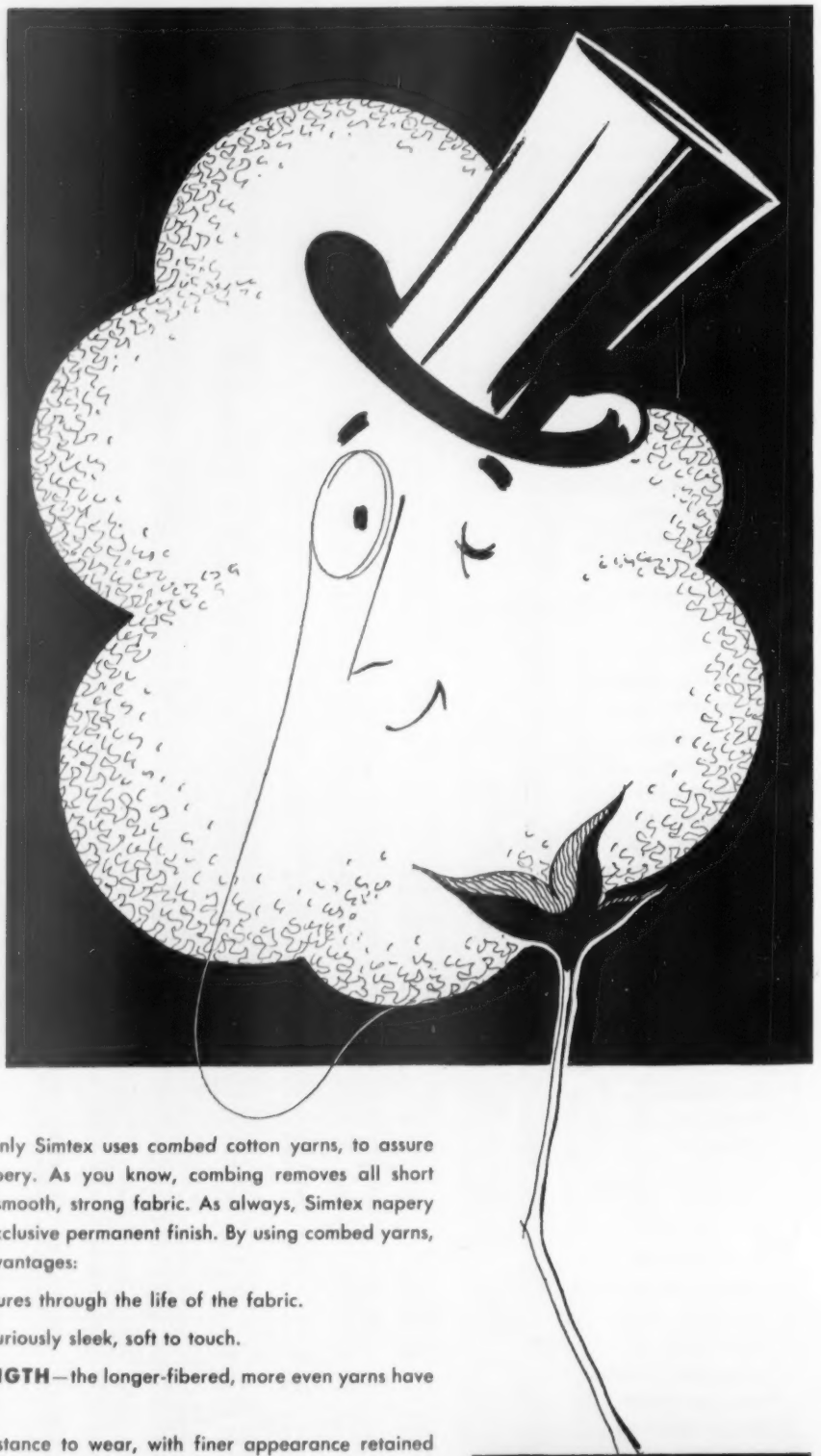
*Report of trustee or trustees.

Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.

presenting

COMBED COTTON

—tops for quality napery



Whether domestic or imported—only Simtex uses *combed* cotton yarns, to assure handsomer, more serviceable napery. As you know, combing removes all short fibers . . . permits a remarkably smooth, strong fabric. As always, Simtex napery stays fresh longer, thanks to our exclusive permanent finish. By using combed yarns, Simtex now offers these added advantages:

1. RICHER LUSTER—which endures through the life of the fabric.

2. SMOOTHER TEXTURE—luxuriously sleek, soft to touch.

3. HIGHER BREAKING STRENGTH—the longer-fibered, more even yarns have greater resistance to strain.

4. LONGER LIFE—stronger resistance to wear, with finer appearance retained through countless launderings.

5. GREATER ECONOMY—fewer replacements needed.

All these improvements at no increase in price

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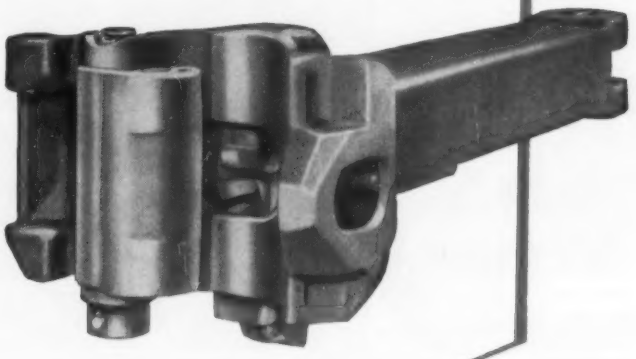


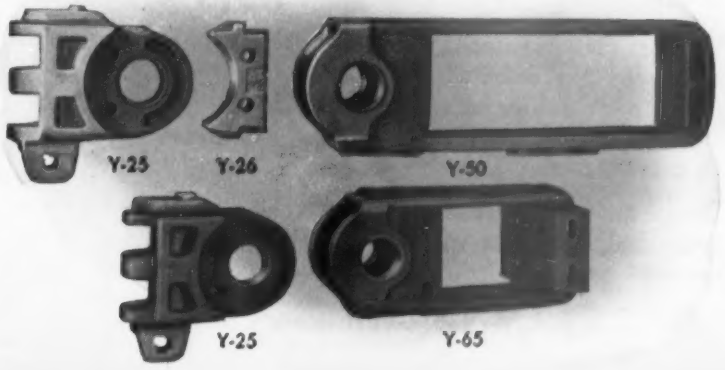
The A.A.R. STANDARD TYPE H

TIGHTLOCK COUPLER

and Attachments

Provide Maximum Comfort and Safety

- No slack in coupler contour.
- Noise caused by coupler slack eliminated.
- Coupler interlock provides maximum safety.
- Improved lock anti-creep protection.
- Wear and Maintenance reduced to a minimum.
- Meet A.A.R. Passenger Car Specifications for strength.



B

THE BUCKEYE STEEL CASTINGS COMPANY

New York, N. Y. Columbus, Ohio Chicago, Ill.

GAIN THESE ADVANTAGES with MET-L-WOOD

METAL BONDED TO PLYWOOD

for new and rebuilt Passenger Car Interiors

FAST ASSEMBLY with Met-L-Wood, whether you fabricate in your shops or use prefabricated Met-L-Wood panels made to your exact specifications.

LIGHT WEIGHT Met-L-Wood panels can reduce weight to as low as 27% of the weight of comparable steel construction.

SOUND-DEADENING value of Met-L-Wood reduces outside noise levels, and is particularly valuable as sound-isolation when used for compartment partitions and doors.

VIBRATION DAMPING effect of Met-L-Wood helps prolong car life — gives passengers extra comfort.

and Smooth, Durable Beauty!

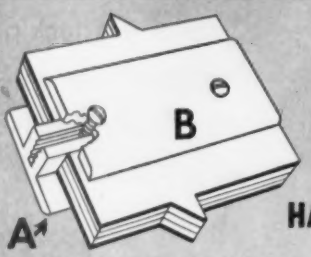
Whether plastic, painted steel, stainless steel, or aluminum, the smooth sweep of Met-L-Wood panels adds beauty to any car interior. Tough, abuse-resisting surfaces keep car interiors new-looking for years.

Details and technical data on Met-L-Wood panels, doors and partitions will be sent promptly on request.

Write for Bulletins 520 and 521

MET-L-WOOD CORPORATION

6755 West 65th Street, Chicago 38, Illinois

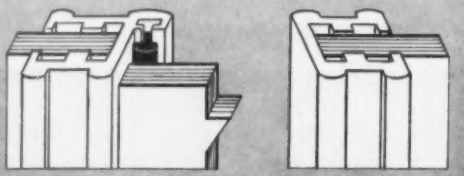


NEW PANEL JOINT HARDWARE

Met-L-Wood panels can now be joined faster and more easily with this new extruded aluminum hardware. Strip A has a grooved slot which provides strong threads for standard 10-24 machine screws anywhere along its length. Strip B can be drilled for screws at convenient points along the panel joint.

PANEL EDGE FITTINGS

Extruded aluminum fittings for Met-L-Wood panel edges improve partition and door appearance and give permanent edge protection. Left below is the fitting for door stops. Keyed slot holds molded rubber bumper firmly and permanently. At right is edge fitting for sliding doors and partition edges. Both fittings are easy to install on Met-L-Wood panels.



CASH REGISTERS. Nationals are used in ticket offices and on dining cars to speed service, provide valuable control and information.

ACCOUNTING MACHINES. National's exclusive combination of automatic features does up to ⅞ of the work automatically—and what machines do automatically operators cannot do wrong. Operator training is simplified, and operators are happier because their work is made easier.

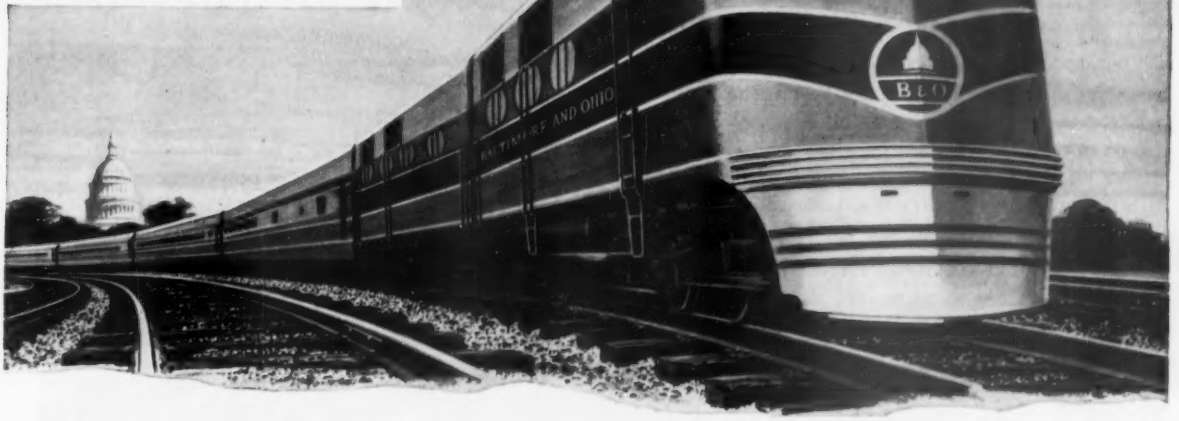
ADDING MACHINES. Nationals provide an exclusive combination of features that handle general figure work with minimum time and effort.

"Nationals save us $359,000 a year ...repay their cost every 10 months!"

—THE BALTIMORE & OHIO RAILROAD COMPANY

"America's First Railroad"

February, 1827



"Constantly improved mechanization is the key to good railroad operation. Even our accounting and statistics must run 'on schedule.' National Accounting Machines sharply reduce our cost of Payroll Accounting, Check and Voucher Writing, Accounts Receivable, Disbursement Analysis, and numerous other accounting jobs.

"We also use National Cash Registers in ticket offices and dining cars for control and public service; and use National Adding Machines for general figure work.

"Our investment in Nationals is $302,296, and we estimate the resulting annual savings in expense is $359,000. Thus the machines return about 100% on the investment every 10 months."

W. S. Price

Vice-President, Finance and Accounting

THE NATIONAL CASH REGISTER COMPANY, *DAYTON 9, OHIO*

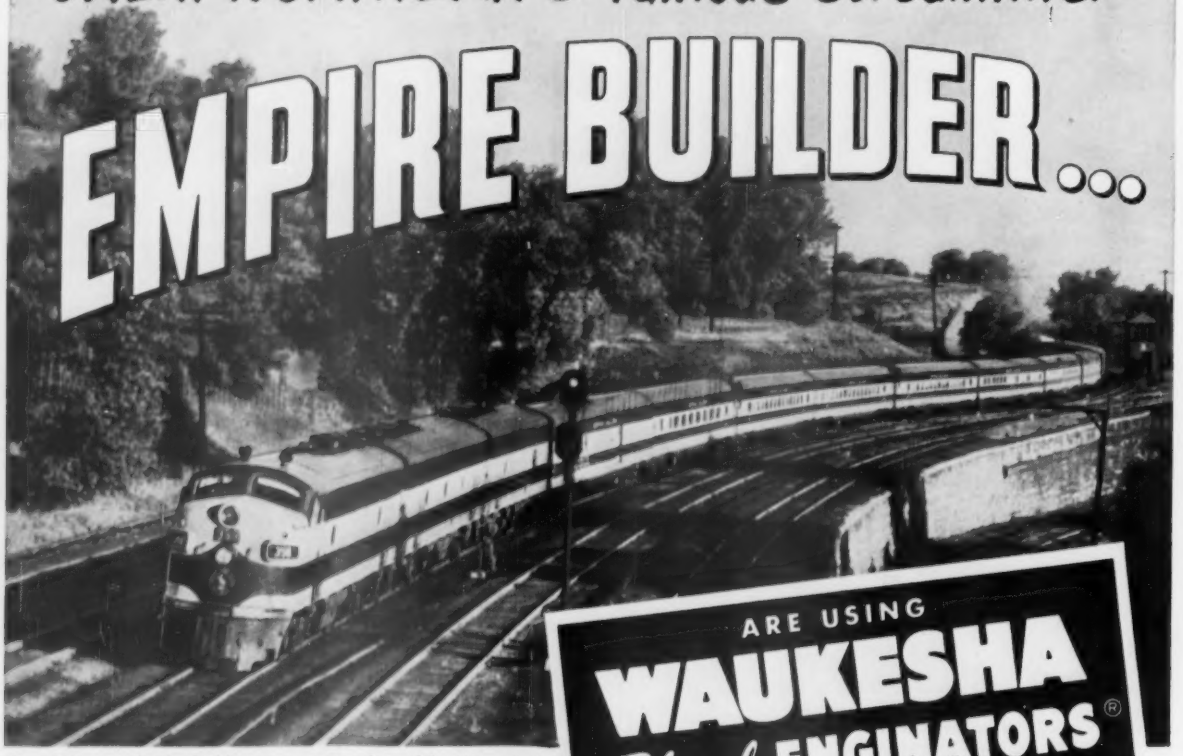
No matter what the size or type of your business, National machines pay for themselves out of the money they save, then continue savings as handsome annual profit.

*TRADE MARK REG. U. S. PAT. OFF.

National
ACCOUNTING MACHINES
CASH REGISTERS • ADDING MACHINES

all five trains of the
GREAT NORTHERN'S famous streamliner—

EMPIRE BUILDER...



ARE USING

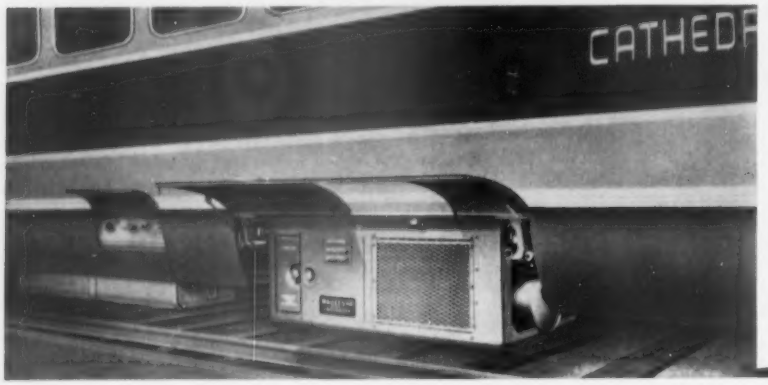
WAUKESHA *Diesel* ENGINATORS®

One of the new Empire Builders, a streamliner fleet of five 15-car trains —with seven cars on every one of the five trains equipped with Waukesha DC Diesel Enginators.

Over forty leading railroads and the Pullman Company are now users of Waukesha railway equipment—Diesel Enginators, Propane Enginators, and Propane Ice Engines. On twenty-one of these railways Waukesha equipment has given outstanding service for ten years or more.

The Waukesha Diesel Enginator is a 27 KW power plant that can supply all electric services. Waukesha Diesel Enginators are of two types—the 27 KW DC unit, and the 33.75 KVA AC unit. Enginators may be operated singly on individual cars; or all units may be train-lined, permitting cars to lend or borrow power according to load demands. That means complete reliability, with constant, full capacity—winter or summer, day or night—any time, anywhere.

Bulletin 1615 describes the DC Enginator and Bulletin 1616 describes the AC Enginator.



RAILWAY DIVISION

WAUKESHA MOTOR COMPANY

WAUKESHA • WISCONSIN

Largest Builders of mobile, engine-driven Refrigeration and Generator Equipment

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Empire Builder car, "Cathedral Mountain" equipped with 27 KW 40-volt DC Waukesha Diesel Enginator with adjacent 200-gallon Diesel Fuel Tank. Car skirts raised to show roll-out mounting of Enginator unit.

245

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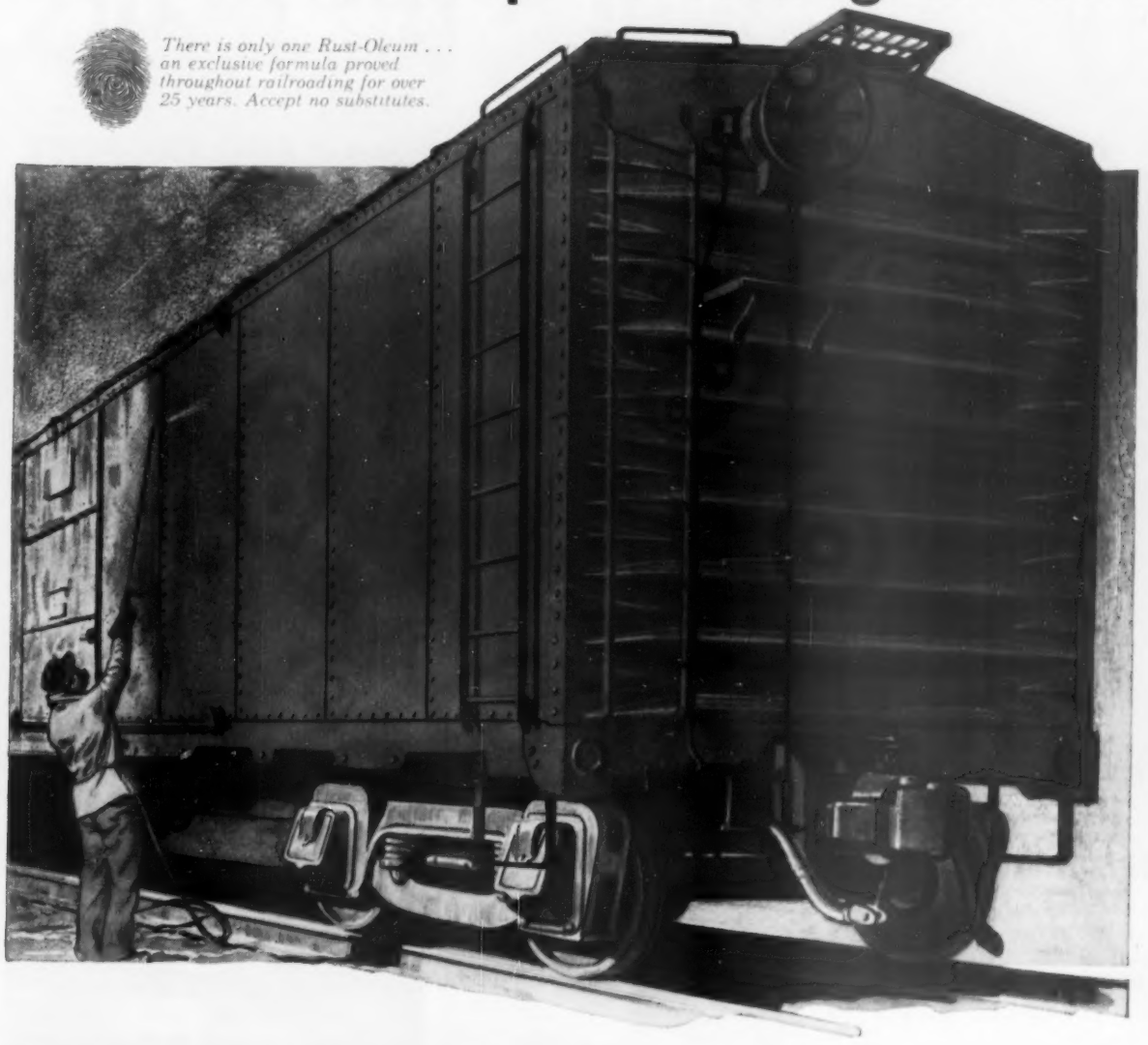
There is only one Rust-Oleum . . . an exclusive formula proved throughout railroading for over 25 years. Accept no substitutes.



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Write for your copy of the new Rust-Oleum Catalog, *today!* Available in many colors, aluminum, and white.

the pioneer still leads

in TRACTION MOTOR BEARING DEVELOPMENT

The first anti-friction bearings applied to heavy-duty traction motors in this country—in 1926—were **SKF** *Bearings. Since then,* **SKF** *has pioneered these additional important developments in Traction Motor Bearing design—*

1939 - Crowned rollers which increased capacity.

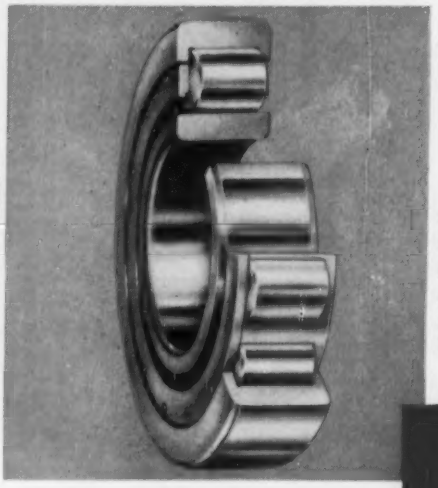
1943 - Assisted Railroads in developing "sealed-grease lubrication."

1945 - "High Capacity" Bearings. Larger and longer rollers further increased capacity without requiring additional space.

1948 - Cage re-design permitting complete disassembly and reassembly for inspection of all parts.

1952 - Longer life M-2 Cage, roller centered, while retaining all previous improvements. Sealed grease lubrication runs up to 500,000 miles without attention.

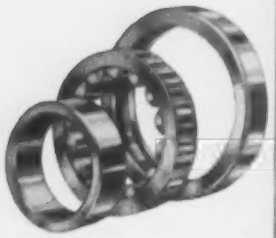
Here is today's SKF Pinion End Cylindrical Roller Bearing



Crowned rollers assure maximum capacity in minimum space.

Roller riding cage is easier to lubricate.

SKF's new M-2 Cage provides easy disassembly and inspection of all bearing surfaces.



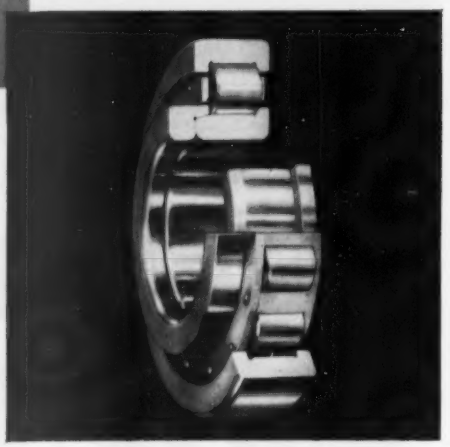
SKF'S NEW M-2 CAGE — USED IN BOTH PINION AND COMMUTATOR END BEARINGS — Here's how easy it is to disassemble for inspection. Just slide out the inner ring. You can then move the rollers out of the outer ring groove, and rollers and M-2 Cage slide right out. Replacement is just as easy.

Here is today's SKF Commutator End Traction Motor Bearing

Crowned Rollers.

Positively stabilizes the armature and holds it in its proper position in the motor frame.

Has M-2 Roller Riding Cage—same as Pinion End Bearing—for easy disassembly and inspection.



When you're laying-in anti-friction bearings, you can get design assistance from **SKF** Field or Home Office men who know the best ways to do the job.

SKF INDUSTRIES, INC., PHILA. 32, PA.—*manufacturers of* **SKF** *and* HESS-BRIGHT® *bearings.* 7481 A

SKF®
TRACTION MOTOR BEARINGS

Diesel Switcher
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STANDARD HD OIL
TRADE MARK

Working on a 24-hour schedule, the Kansas City Terminal Railway keeps freight and passenger traffic moving without delay through one of the Midwest's busiest railroad centers. In addition to its general freight switching activities, this Company serves the big Union Station and switches the passenger equipment for the 12 proprietary lines.

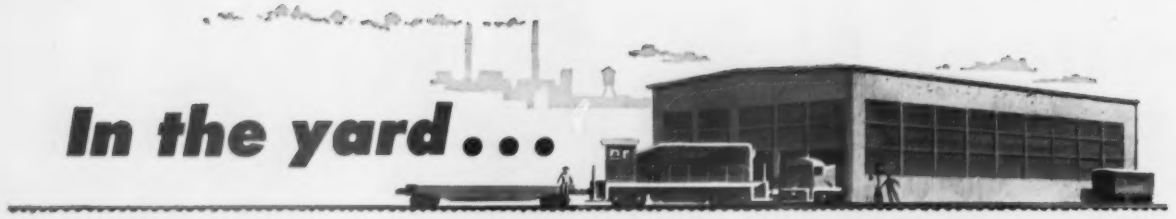
Such heavy-duty switching service has called for continuous and reliable operation of diesel switching locomotives. Effective lubrication by STANDARD HD Oil has contributed to the efficiency of these locomotives. Used since 1947, STANDARD HD has provided convincing evidence of its ability to keep engines clean and protected in severe service.

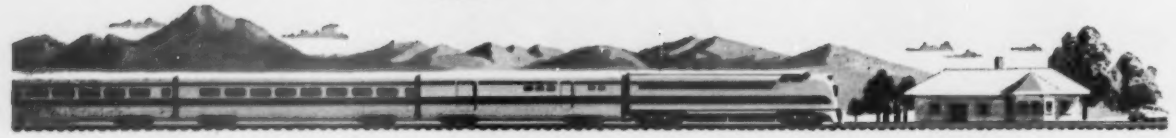
On more than 70 railroads, STANDARD HD has likewise demonstrated its ability to provide effective lubrication in all types of diesel locomotives and in all kinds of service. Make this acceptance of STANDARD HD the basis for trying this outstanding heavy-duty lubricant in your diesel locomotives. A Standard Oil Railway Department representative will be glad to help you. Write, Standard Oil Company, 910 South Michigan Ave., Chicago 80, Ill.

STANDARD OIL COMPANY

STANDARD

(Indiana)





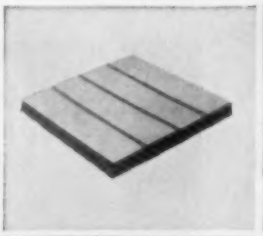
Johns-Manville men and materials help you improve passenger comfort and cut maintenance costs

Shown below are four—of many—Johns-Manville products that have *proved* their ability to cut costs and add to passenger comfort in thousands of railroad installations across the country.

Such products do their job well . . . provide the greatest economy in service . . . and last through the years, because they were designed, engineered and manufactured with the highest standards of quality as a basic objective.

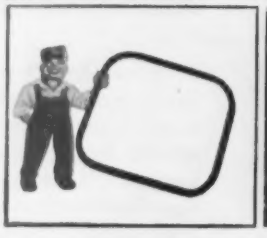
Your Johns-Manville representative will be glad to help you decide which of these and other Johns-Manville products can be best used to help reduce your costs and increase the comfort of your passengers.

J-M STONEFELT® INSULATION—Here is an efficient, fireproof mineral fibre insulation especially designed for refrigerator and passenger car service. Stonefelt provides low thermal conductivity, good sound absorption and moisture-resistance. Effectively helps keep car temperatures uniform regardless of the weather outside.



J-M THERMO-WRAP® PIPE INSULATION—This efficient, lace-on type insulation gives maximum protection to steam heating lines throughout the length of the train from head end to the last car. It is easy to install—fits tight and stays tight—withstands rain, sleet, snow and the impact of flying ballast. Made of selected asbestos fibre, and protected with a tough Neoprene coating.

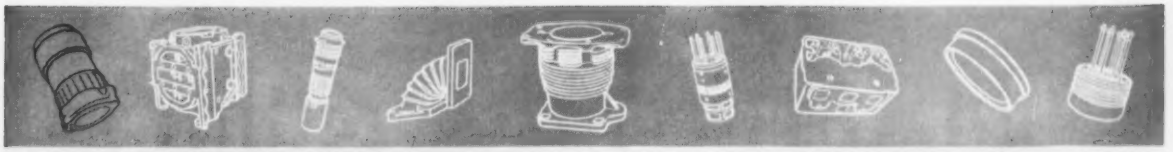
J-M DIESEL LOCOMOTIVE PACKINGS—This is one of a group of new packings especially made for diesel locomotives. The gasket shown is designed for hand-hole cover plate service. It is a moulded packing unaffected by gas or oil. It seals tightly, conforms readily to warped or distorted plates. Johns-Manville Packings provide longer, more economical service.



J-M TRANSITE® PRESSURE PIPE—This asbestos-cement pipe cuts water line costs because it is highly corrosion resistant. Flexible joints enable it to withstand an unusual amount of vibration. Its high water-carrying capacity keeps down pumping costs and its light weight and easily assembled joints make for economical installation.

For further information on these and other Johns-Manville products, get in touch with your J-M Representative, or write Johns-Manville, Box 60, New York 16, N. Y.

Johns-Manville 95 YEARS OF SERVICE TO TRANSPORTATION



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GUN IRON

. . . THE MODERN METAL for Diesel Engine Wearing Parts

Why is Gun Iron recognized as one of the best materials available for diesel engine wearing parts? The answer lies in physical properties which provide exceptional resistance to frictional wear . . . extreme pressure . . . high heat . . . resistance to corrosion and erosion.

Hunt-Spiller's air furnace process of producing Gun Iron was originated many years ago. However, as a result of constant development, Gun Iron is recognized today as a *modern* metal which can and does contribute to most efficient diesel performance. Its quality is always completely controlled as it is produced in our own furnaces, cast in our modern foundry and, when desired, can be completely machined in our own manufacturing plant.

Gun Iron castings are identified by the letters "HSGI." On your diesel parts they spell long, economical service. Look for them.

DO YOU WANT TO KNOW MORE of the products manufactured by Hunt-Spiller and the company behind them? These two brochures provide detailed information on diesel parts manufactured by the company and the production facilities being utilized. Copies of each will be sent without obligation upon request on your company letterhead.

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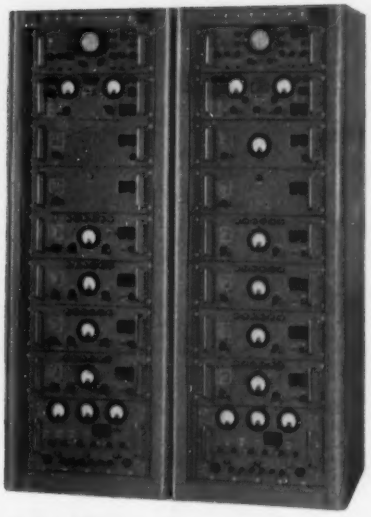
...the symbol of leadership in printing telegraphy



Transmitter *Receiver*

ELECTRONIC MULTIPLEX

Each cabinet is 27" wide, 24¼" deep and 72⅞" high.

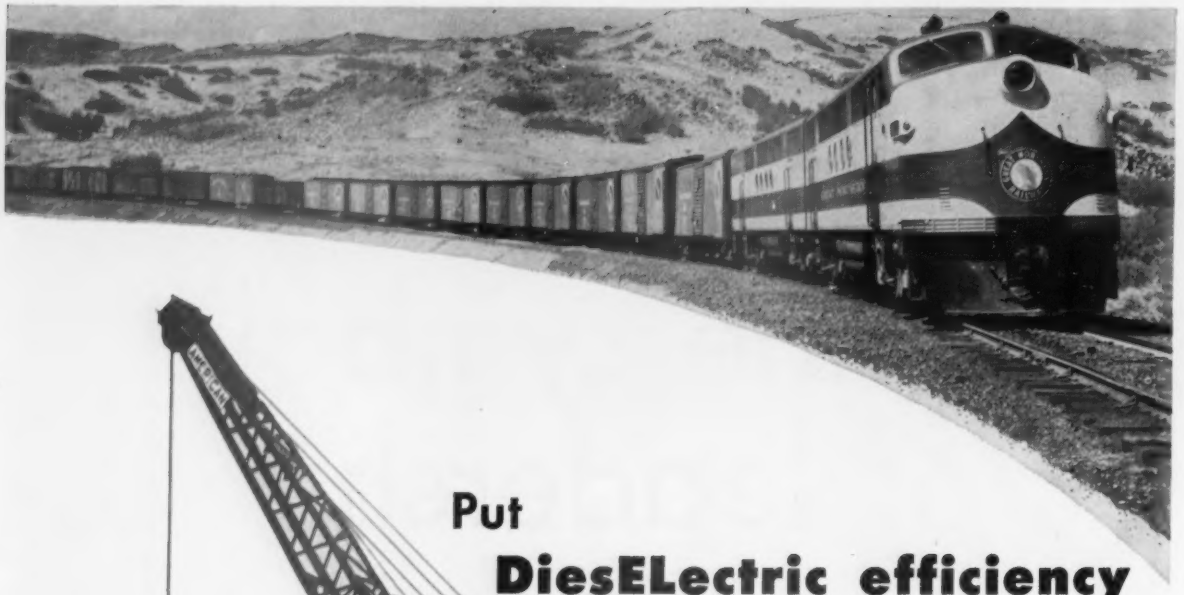
All told, there are over a hundred different items in the Teletype line—ranging from several kinds of page and tape printers to climbing reperforator-transmitter-distributors, and from large "group" apparatus like Torn-Tape Message Relay equipment to small convenience items like tape winders, word counters, and test sets.

One of the newest products of Teletype engineering is an Electronic Multiplex. It combines two, three, or four randomly received start-stop telegraph signals (direct keyboard or tape), converts them to a multiplex signal, and transmits this signal over a single radio or wire circuit. The receiver regenerates the multiplex signal and reconverts it to the original start-stop signals.

Crystal controlled, the synchronization between sender and receiver is so close that a radio circuit may be interrupted for as long as sixty minutes and the sending and receiving terminals will still be in phase.

The Electronic Multiplex is a compact, self-contained, packaged set, with no moving parts. Phasing is a simple push-button operation. Maintenance can be performed without interruption to the flow of traffic, and is greatly facilitated by the roll-out and tilt-up drawer construction of the cabinets and the built-in oscilloscope.

For further information write to Teletype Corporation, 1400 Wrightwood Avenue, Chicago 14, Illinois. Ask for Descriptive Leaflet 26D1.



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DiesELectric efficiency
into your
materials handling
operations, too!

Switch to American DiesELectric Cranes

Let's face it . . . generally, steam is obsolete. High maintenance cost, high labor cost, inefficiency, has sealed its fate. That's why cost-conscious buyers insist on American DiesELectric Locomotive Cranes to put Diesel efficiency into their materials handling operation! We can prove that American DiesELectric Locomotive Cranes with Diesel power to the deck, electric power to the trucks *write off their cost in a few short years!* But, seeing is believing. Write us today for full facts!

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American Hoist & Derrick Co. St. Paul, Minnesota

100 RAILROADS CAN'T BE WRONG

Time has proved they were right in choosing Model 10 protection

From a single installation on the Grand Trunk Railroad in 1936...to thousands of installations on a hundred railroads today. That's the success story of Model 10 Automatic Signals, America's Number One Guardian of railroad-highway crossings. And any traffic expert can tell you why these signals are preferred protection:

1. They provide *positive* safety. Records show that not a single accident has ever occurred as a result of operation failure on the part of Model 10's.

2. Cost analyses show that Model 10's represent the best buy in grade crossing safety. Their initial cost is low; their operating cost small.

3. Model 10's eliminate the grade crossing hazard *immediately*. They can be installed quickly, easily, in much less time than would be required for grade separation.

Model 10 installation at a crossing in San Antonio, Tex.

Find out *all* about Model 10 Automatic Signals. Write today for "Grade Crossing Safety is Your Business." Ask for Brochure No. 748-554

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• New UP dining car — operated with kitchen-dormitory car as a two-car unit.

New UP Sleepers—Diners—Head-End Cars—NEW YORK AIR BRAKE-Equipped

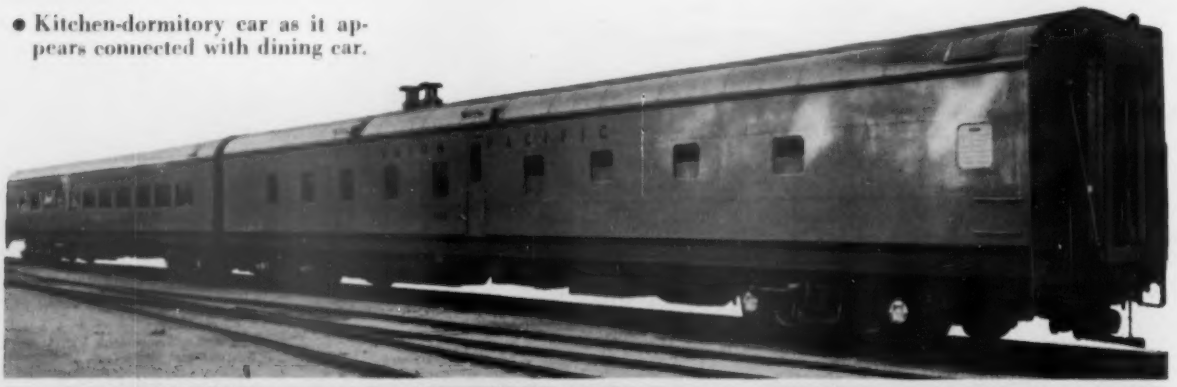
UNION PACIFIC RAILROAD

NY

THE Union Pacific is putting its best foot forward and bidding for increased passenger business with luxurious new equipment for the "City of Denver" and other trains in its crack passenger fleet. New York HSC air brake equipment is provided on 56 of these new cars, including all sleepers, diners and kitchen-dormitory cars as well as 25 baggage cars and two postal-mail-storage cars.

On these modern aluminum alloy cars built by American Car & Foundry, the uniform-acting electro-pneumatic brake system supplied by New York Air Brake Co. will make an important contribution to running efficiency and passenger comfort on the UP.

• Kitchen-dormitory car as it appears connected with dining car.



The New York Air Brake Company

230 Park Ave., New York 17, N. Y.

UNION PACIFIC RAILROAD COMPANY

Fifty-Seventh Annual Report — Year Ended December 31, 1953

REPORT OF THE BOARD OF DIRECTORS

New York, N. Y., April 29, 1954.

To Stockholders of Union Pacific Railroad Company:

The Board of Directors submits the following report for the Union Pacific Railroad Company, including its *Leased Lines, for the year ended December 31, 1953.

CONDENSED STATEMENT OF INCOME

	1953	1952
Operating revenues	$530,024,300	$520,221,326
Operating expenses	$400,427,365	$389,840,054
Taxes (including taxes on income from sources other than transportation operations)	77,636,443	79,958,000
Equipment and joint facility rents—net charge	23,100,566	17,662,152
Net income from transportation operations	$ 28,859,926	$ 32,761,120
Net income from oil and gas operations (excluding income taxes)	34,318,992	33,608,842
All other income	13,003,414	8,218,892
Total income	$ 76,182,332	$ 74,588,854
Fixed and other charges	5,752,119	5,861,628
Net income from all sources	$ 70,430,213	$ 68,727,226
Released from "Reserve against possible refunds on U.S. Government shipments"	535,127	938,258
Total for disposition	$ 70,965,340	$ 69,665,484

As indicated above, net income from transportation operations includes taxes on income from other sources, in conformity with accounting regulations of the Interstate Commerce Commission. If Federal taxes on oil and gas income were added back to transportation income and subtracted from oil and gas income, net income from transportation operations would be $39.8 million in 1953 and $43.3 million in 1952, while net income from oil and gas operations would be reduced to $23.4 million in 1953 and $23.1 million in 1952.

Net income from transportation operations, after adding back Federal taxes on oil and gas income, represented in 1953 a return on average investment in transportation property (less reserves for depreciation and amortization) of 3.92 per cent compared with 4.41 per cent in 1952.

Total income for disposition, before appropriation of dividends on preferred and common stocks of Union Pacific Railroad Co., represented a return of 7.69 per cent on the average equity during the year of Union Pacific Stockholders in the Company (par value of capital stock plus surplus), which compared with a return of 7.94 per cent in 1952. Net earnings per share of common stock, after preferred dividends, amounted to $15.07, or 30 cents more per share than in 1952.

*Leased Lines are: Oregon Short Line R.R. Co., Oregon-Washington R.R. & Navigation Co., Los Angeles & Salt Lake R.R. Co., and The St. Joseph and Grand Island Ry. Co. Figures are stated on a consolidated basis, excluding offsetting accounts between companies.

OPERATING REVENUES

While the general level of freight rates remained unchanged in 1953, about two-thirds of the increase in Freight revenue over 1952 represents the effect during the forepart of the year of the rate increases effective May 2, 1952, authorized by the Interstate Commerce Commission, which raised the average revenue per ton-mile for the year by 2.2 per cent. The remainder of the rise was attributable to the larger volume of freight handled. Revenue ton-miles increased 1.2 per cent. Freight traffic was influenced favorably and substantially by the absence of any major industrial labor disturbances, such as the protracted steel strike of June-July, 1952. During the first seven months, volume increased about 4 per cent, but during the last five months it decreased about 2 per cent when economic activity in many lines slowed down.

The commodity categories reflecting the largest revenue *increases* were: *ammunition and explosives*, as the result of heavier shipments by the Government from ordnance plants to storage depots; *automobiles, motor trucks, and parts*, because of unrestricted production made possible by discontinuance of Government allocation of metals; *iron ore* and *iron and steel products*, shipments of which were reduced in 1952 by the steel strike; *lumber* and *plywood*, moving eastward from Pacific Coast areas in response to brisk demand occasioned by continued expansion in building construction; *chemicals*, primarily *phosphorus*, from a new plant at Soda Springs, Idaho, which commenced operation during the year; *soda products*, reflecting expanded production at Westvaco, Wyoming; and *hay*, of which a large volume moved at temporarily reduced freight rates for drought relief in Missouri, Arkansas, Texas, and other stricken areas.

The most important revenue *decreases* were in: *bituminous coal*, because of milder weather conditions, continuation of the trend toward substitution of oil and natural gas for coal as fuel, and less movement to Government agencies, notably the Hanford project at Richland, Washington; *wheat* and *corn*, because of smaller crops in the Middle West and holding of available supplies in storage under Government loans; and *hogs*, owing to fewer being raised on Middle Western farms and prevalence in some areas, of vesicular exanthema, commonly known as "VE disease."

The decline of 8.4 per cent in Passenger revenue was occasioned by reduced rail travel generally, and less military movements because of the change in the Korean situation. The number of revenue passengers carried one mile fell off by 7 per cent and the average revenue per passenger-mile decreased 1.6 per cent.

The drop in Mail revenue was occasioned by the payment in 1952 by the Post Office Department of additional compensation for terminal services in connection with mail carried in 1951, and by the diversion in 1953 of some mail to other forms of transportation by the Post Office Department.

OPERATING EXPENSES

The slight increase in the *percentage ratio* of operating expenses to operating revenues resulted from the greater proportionate increase in operating expenses than in operating revenues. Notwithstanding the difficult problems encountered in controlling expenses under present-day conditions, determined efforts are continuing to increase the net of revenues over expenses by improvement in operational methods and modernization of plant and equipment to effect greater efficiency in operations.

Wage payments constituted about 60 per cent of operating expenses during 1953. A considerable portion of the rise in expenses, was accounted for by wage rate increases. The most substantial of these was an increase of 4¢ per hour, retroactive to December 1, 1952, which was awarded to organized employes by a referee appointed by the President of the United States in connection with demands for higher wages. Additionally, demands of trainmen and firemen were settled by granting a wage increase of 5¢ per hour, effective December 16, 1953, and a third week of annual vacation, starting in 1954, to employes having 15 or more years of continuous service. At the close of the year, negotiations were under way with other operating employes and with non-operating employes.

The number of man-hours paid for increased one per cent, primarily because of the larger volume of freight business handled, and because of numerous measures taken to improve and speed up freight service to meet shippers' requirements, maintain a favorable competitive position with other railroads, and improve our services with relation to other forms of transportation. Typical of these measures were the provisions for guaranteed sixth morning instead of seventh morning delivery at Chicago of perishable shipments from the Pacific Coast, and inauguration of a new freight service for handling, on flat cars, highway truck trailers containing merchandise shipments picked up at and leaving Los Angeles in the evening for following early morning delivery at Las Vegas, and the subsequent extension of this service to Salt Lake City.

Cost of material and supplies used in maintenance and operation, was considerably greater than last year, principally because of higher prices of fuel and various steel products.

Charges for *depreciation of rolling stock* were about $825,000 greater than in 1952, chiefly because of new acquisitions.

Favorable factors which counteracted to some extent the effect of the matters mentioned above, were freedom from floods such as those which occurred in 1952, milder temperatures, less snowfall, and a reduction of 22 per cent in overtime man-hours paid for at premium rates.

TAXES

State and county taxes were greater because of somewhat higher assessed valuations on property and slightly increased ad valorem tax rates.

The decrease in Federal income taxes was occasioned by smaller taxable income. The tax rate was the same in both years. In determining income taxes for 1953, tax-

able income was reduced (as permitted under Section 124A of the Internal Revenue Code) by approximately $13,896,036, compared with $9,863,222 in 1952, representing amortization, on a 5-year basis, of portions of the cost of equipment and other improvements certified by the Office of Defense Mobilization to be necessary in the interest of national defense. These amounts exceeded charges against income, under Interstate Commerce Commission regulations, for depreciation on such improvements, by $11,526,888 and $8,117,046, respectively, thus reducing income taxes by about $5,993,982 in 1953 and $4,220,864 in 1952. The consequent betterment in net income for 1953 was equivalent to $1.35 per share of common stock compared with betterment of 95 cents in 1952. However, such reductions in income taxes constitute a tax deferment only and not necessarily a true tax saving, because after the cost of the improvements has been amortized, no depreciation on them will be allowable for income tax purposes. Accordingly, income taxes in future years will be greater than if the amortization had not been allowable.

The higher Federal unemployment insurance and Federal retirement taxes were caused by increased payrolls.

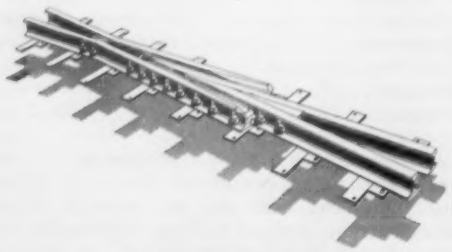
Total taxes for 1953 were equivalent to 14.7 per cent of gross operating revenues and to $1,388.00 per employe. Total taxes were also equivalent to $17.46 per share of common stock or $2.39 per share more than the Common Stockholders' equity ($15.07 per share) in net earnings.

EQUIPMENT AND JOINT FACILITY RENTS

The greater net charge for Equipment and joint facility rents was occasioned by a sharp rise of $5,517,177 or 34 per cent in net payments for Equipment rents, chiefly because of increases in the mileage rate payable for use of freight refrigerator cars. The rate was increased from 3¢ per mile to 3½¢ effective January 1, 1953, and to 4¢ per mile three months later. Most of the payments for such equipment are made to the Pacific Fruit Express Co., in the earnings of which the Union Pacific shares as a joint owner with the Southern Pacific. The net charge for Joint facility rents was slightly less in 1953 than in 1952.

OIL AND GAS OPERATIONS

The increase in receipts was brought about by higher prices of oil, gas and other products. The oil price increases became effective in California during February, and in Colorado and Wyoming during June. The volume of production and sales of oil and gas decreased in all of the fields of importance in which the Company is interested, the decrease in oil production being about 5 per cent and in gas production about 10 per cent, under 1952 levels. The increase in intangible expenditures was due primarily to a more active drilling program, particularly in the Wilmington field. Less maintenance work in this field, however, accounts for the decrease in production expenses. The rise in taxes was principally in the Rangely field where taxes were more than quadrupled because of a new "severance tax" in Colorado.



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Crossings — Switches

Your Railroad Track Material requirements tailor-made exactly to specifications.

NELSON IRON WORKS, backed by years of know-how in this highly specialized business, is a recognized leader in the field.

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IRON WORKS, INC.

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Lewis **sealtite** car bolt

Cross section of head, from above, showing fins, bevel and shank. Bolt available with Lektite Nut #2 (shown) or std. square and hexagon nuts.

Engineered for sheathing, flooring and fastening all wood parts. Permits smooth, flush surface construction. Sealtite fins prevent turning. Beveled edge forms water-tight seal, eliminates counter boring. *Available in Hot-Dip Galvanized finish for added life and economy.*

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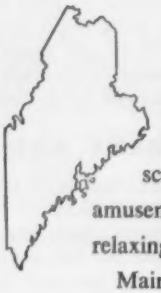
Maine

INVITES YOU



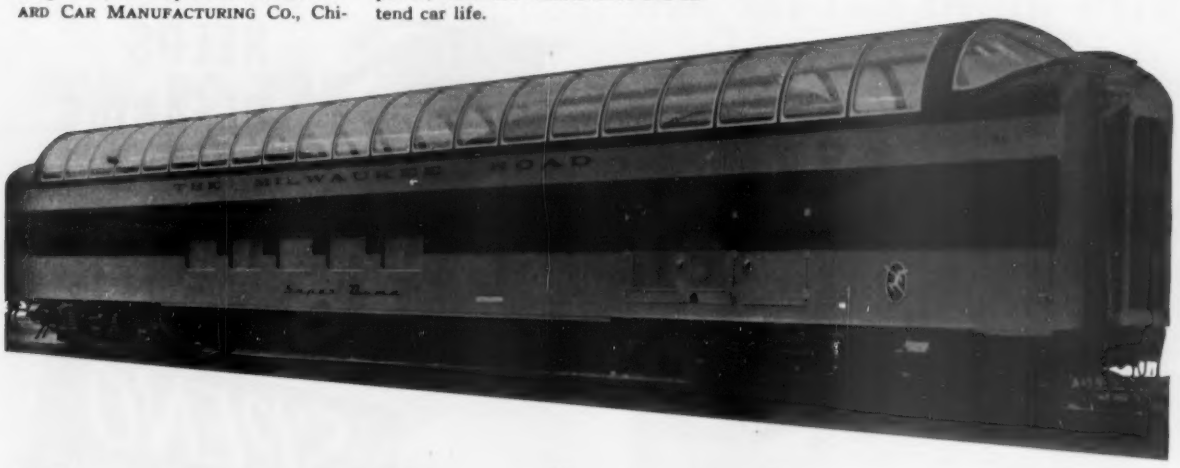
Maine, the nation's Vacationland, offers scenic beauty, variety of amusement, healthful climate, relaxing atmosphere.

Maine Central Railroad offers travelers modern equipment, fast, frequent service, comfortable, economical transportation.

MAINE CENTRAL RAILROAD

MAINE CENTRAL RAILROAD

SAVINGS ARE SURE when you cut the weight of your cars by designing to use high strength, low alloy steels containing nickel. This "Dome" type passenger car, built by PULLMAN STANDARD CAR MANUFACTURING CO., Chicago, Ill., utilizes the superior stamina and corrosion resistance of U•S•S COR-TEN steel, produced by UNITED STATES STEEL CORP., Pittsburgh, Pa., to save power, minimize maintenance and extend car life.



High strength low alloy steel assures substantial economies

cuts deadweight...lengthens car life

Without sacrificing strength or safety, the majority of railroads have trimmed deadweight from cars by utilizing high strength, low alloy steels containing nickel . . .

Under actual operating conditions on major roads, repeated tests have shown the nickel alloyed steels to be five times more corrosion-resisting than carbon steels, and two and one-half times that of copper-bearing steel. This superior corrosion resistance adds years of useful service to car life.

The smaller quantity of rust which forms on high strength, low alloy steels containing nickel is of a more impervious nature than the rust which forms on carbon or copper-bearing steels. Denser and more adherent, it also accounts for a longer paint life than is obtained on copper-bearing steel coated with the same paint system.

You can cut deadweight since thinner, lighter sections of the nickel alloy steels, provide the same strength and ruggedness as thicker, heavier sections of plain carbon steels. On the other hand, by using these nickel alloy steels with the same section thickness as the plain carbon steels, you add years to the useful life.

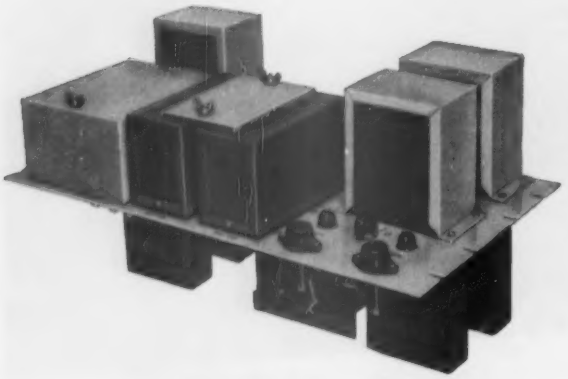
In addition to resistance to corrosion and superior strength, the nickel alloy steels withstand shocks . . . battering and piercing . . . and abrasion. And they show excellent response to usual fabricating operations, including forming and welding.

Especially suited for railroad applications, high strength, low alloy steels containing nickel along with other alloying elements are produced under various trade names by leading steel companies. Consult us on the use of these steels in your products or equipment. Write today.

INCO

THE INTERNATIONAL NICKEL COMPANY, INC. 67 WALL STREET NEW YORK 5, N.Y.

ANOTHER C-D "FIRST"



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- **Especially recommended for general communications and standby service for telephone, carrier, and microwave applications.**
- **Delivers continuous-duty sine wave regulated power up to 350 watts at 115 volts, 60 cycles from an input of 48 volts DC.**
- **Compact, requires minimum panel space.**
- **Picks up full load within approximately 50 milliseconds of starting time.**
- **80% efficient at full load.**
- **Incorporates input line filter.**

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South Plainfield, N. J.

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PLANTS IN SO. PLAINFIELD, N. J.; NEW BEDFORD, WORCESTER & CAMBRIDGE, MASS.; PROVIDENCE & HOPE VALLEY, R. I.; INDIANAPOLIS, IND.; FUQUAY SPRINGS & SANFORD, N. C.; SUBSIDIARY: RADIART CORP., CLEVELAND, O.

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SPENO contract service eliminates capital investment by Railroads in this single-operation equipment.

SPENO'S double screening system gives a thorough cleaning in less time than a single screening by other mechanical means.

SPENO Ballast Cleaning Equipment does not foul train traffic on adjacent tracks.

SPENO'S record of high production and low cost can be verified by the sixteen Class I railroads now served.

Just ask the Railroads that have used us.
FRANK SPENO RAILROAD BALLAST CLEANING CO., INC.
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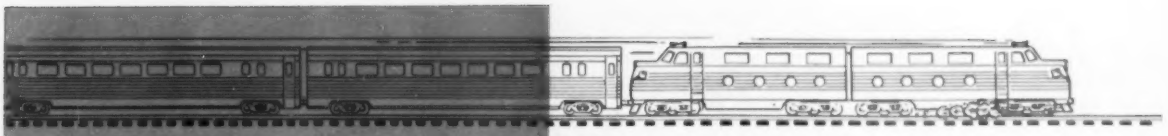
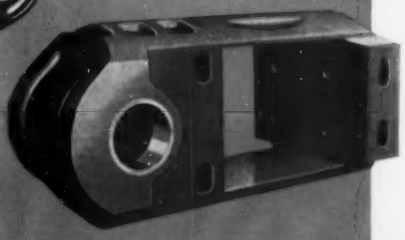


GREATER SERVICE LIFE with INCREASED SAFETY provided by

Symington-Gould

TYPE H TIGHTLOCK COUPLERS

Radial Connection



Yoke—Standard Pocket for Twin-Cushion Draft Gear Application.

Radial Connection Seat

- Increase safety against accidental uncoupling.
- Eliminate slack in coupler contour.
- End noise caused by coupler slack.
- Intercouple with existing standard couplers . . . greatly reducing contour slack which normally exists.
- Insure positive engagement when coupling at slow speeds.
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- Increase service life.

A.A.R. Type H Tightlock Coupler

Shank Pin

Yoke Pin

Retainer

Yoke—Standard Pocket for Conventional Draft Gear Application.

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This month Dr. Oscar Horger demonstrates how Timken bearings carry combination loads without auxiliary thrust devices.

The taper makes TIMKEN® the only journal bearing that delivers what you expect when you buy a roller bearing

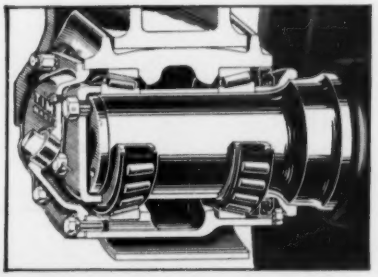
RAILROADS invest in roller bearings for two reasons: to end the hot box problem and cut operating and maintenance costs to a minimum. The *one* bearing you can count on to do this is the Timken® tapered roller bearing. And here's why:

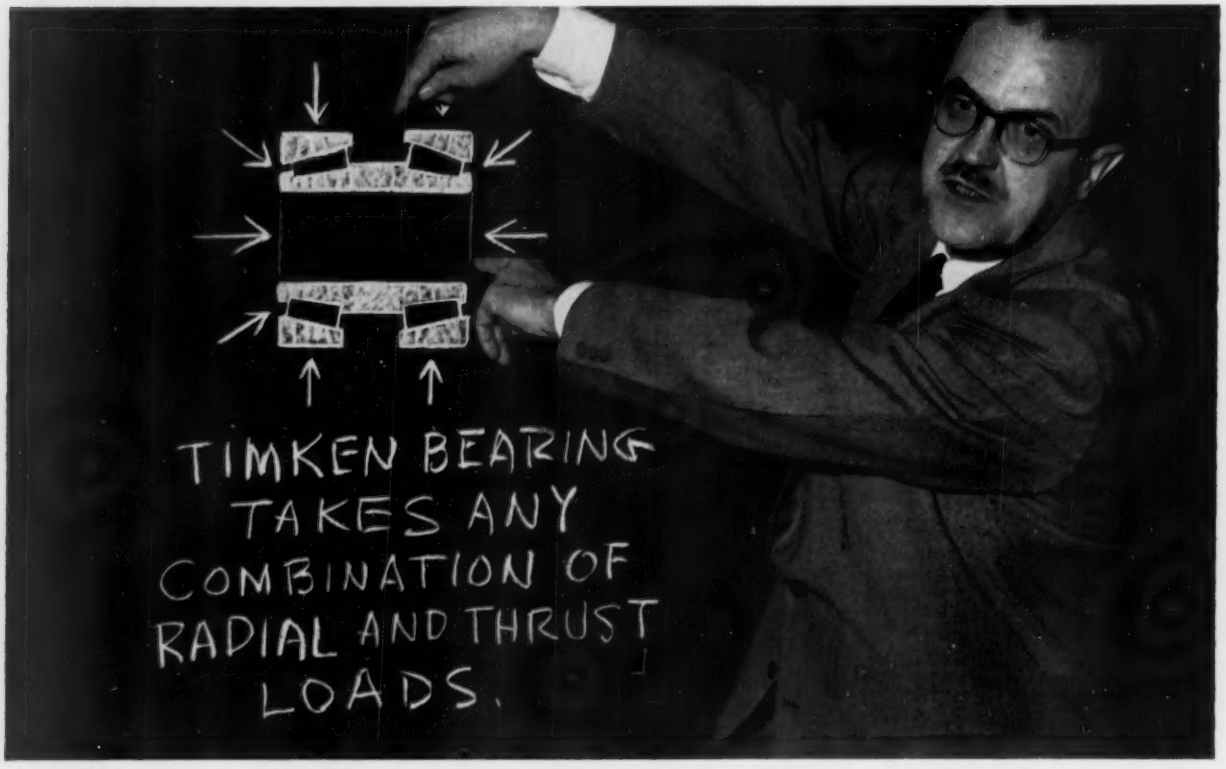
1) *No lateral movement within the bearing.* In straight roller bearings auxiliary thrust devices are needed to take thrust loads. These thrust devices are not completely effective and are difficult to lubricate with grease. And lateral movement causes scuffing of rollers and races. It also pumps lubricant through the seal and out of the journal box, draws dirt and water in.

In Timken bearings the taper prevents lateral movement, enables them to take the thrust. They always *roll* the load, never slide it. There's no scuffing, no pumping action. This helps end the hot box problem, means less maintenance, less lubricant and longer bearing life.

2) *Positive roller alignment.* The taper holds ends of rollers snug against the rib, where wide area contact keeps rollers properly aligned. Rollers can't skew to upset the full line contact and shorten the life of the bearing.

When you buy Timken roller bearings to end the hot box problem and cut operating and maintenance costs to a minimum, you can count on them to do it. It's the taper! The Timken Roller Bearing Company, Canton 6, Ohio. Cable address: "TIMROSCO".





THE TAPER MAKES TIMKEN THE BEARING YOU TRUST

TRADE-MARK REG. U. S. PAT. OFF.

NOT JUST A BALL ○ NOT JUST A ROLLER ⬭ THE TIMKEN TAPERED ROLLER ⬭ BEARING TAKES RADIAL ⬮ AND THRUST →⬮← LOADS OR ANY COMBINATION ✳